SERVICE MANUAL

Dual

550ORDS

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GENERAL TECHNICAL DATA

A M P L I F I E R

Power supply unit

Power supply : 230V / 50Hz
Power consumption : 150Wh
Fuse : 2A / 250V
6.3A / 250V X 2

Amplifier

AF-Power output (1KHz/K3=1.0%=2X)>22W
Distortion at 1/2 sine power : <0.2%
Crosstalk attenuation (20Hz ... 20KHz) : >50dB

Function	Frequency -response	S/N -ratio	Signal-to-hum ratio
Phone	30Hz...20KHz	>50dB	>45dB
CD	20Hz...20KHz	>60dB	>55dB
Aux	20Hz...20KHz	>60dB	>55dB
Tuner	20Hz...20KHz	>60dB	>55dB
Tape	20Hz...20KHz	>50dB	>45dB

T U N E R

Power supply : 230V / 50Hz
Ranges : FM 87.5...108MHz
MW 522 ...1620KHz
LW 153 ...281KHz

Tuning steps : FM 50KHz
MW 9KHz
LW 1KHz

Intermediate frequencies : FM 10.7 +/- 0.03MHz
AM 450KHz

Sensitivity : FM <5.6uV(30dB, 40KHz)
MW <700uV/m (20dB)
LW <1000uV/m (20dB)

Selectivity : FM >60dB (+/-300KHz)
MW >25dB (+/-10KHz)

IF-Rejection : FM > 70dB (90MHz)
MW > 40dB (603KHz)
LW > 40dB (164KHz)

AM-Suppression : FM > 40dB

Image rejection : FM > 45dB (106MHz)
MW > 25dB (1404KHz)
LW > 23dB (272KHz)

Signal-to-noise ratio : FM > 60dB
MW > 40dB

Distortion : FM < 1%
MW < 3%

Frequency : FM <80Hz ... > 12[illegible]Hz

D E C K

Power supply : DC18V
Oscillator frequency : 105KHz +/- 5%
Tape speed : 4.76Cm/sec. <+/-3%>
Wow and flutter : <0.3%

Frequency response:Normal 125Hz...14KHz(TCC-106A)
CrO2 125Hz...14KHz(TCC-203A)

Signal-to-noise weighted:Normal > 55dB(TCC-106A)
CrO2 > 55dB(TCC-203A)

Signal-to-noise weighted:Normal > 65dB(TCC-106A)
(W/Dolby) CrO2 > 65dB(TCC-203A)

Channel separation : >35dB(TCC-194)
(1KHz, W/BPF)

Distortion : < 3% (1KHz)
Signal cross talk : > 50dB(TCC-192)
(1K, W/BPF)
Erase ratio : Normal > 60dB(TCC-106A)
(1K, W/BPF) CrO2 > 60dB(TCC-203A)
R/P head material : Hard permalloy
Erase head material : Ferrite

C D

S/N : >/= 85dB (Jis-A filter on at 1KHz 0dB)

D-range : >/= 80dB (At 1KHz)

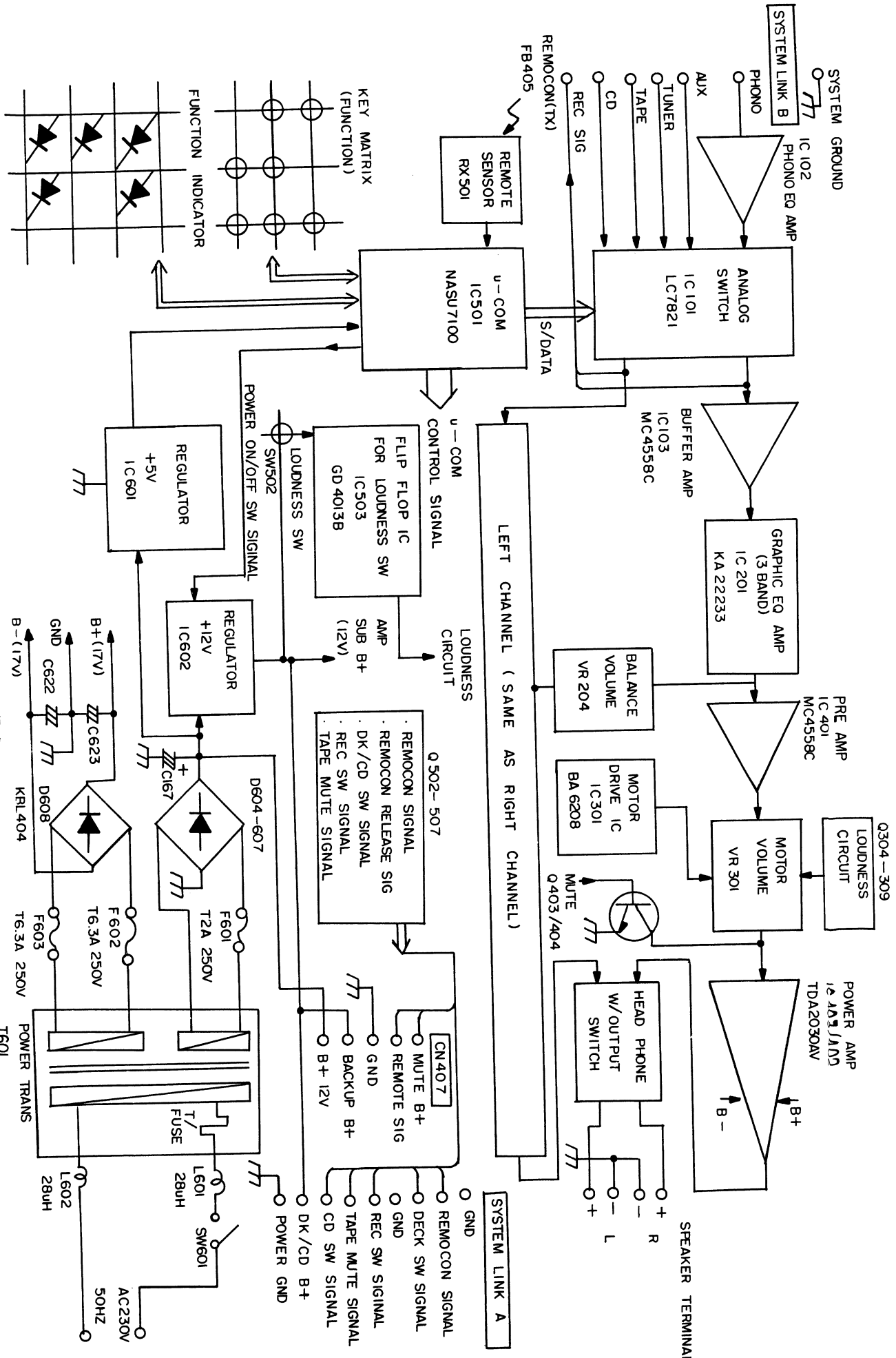
THD : 0.05% (At 1KHz 0dB)

Frequency characteristics : -1.5dB +/- 1.5dB (20Hz - 20KHz)

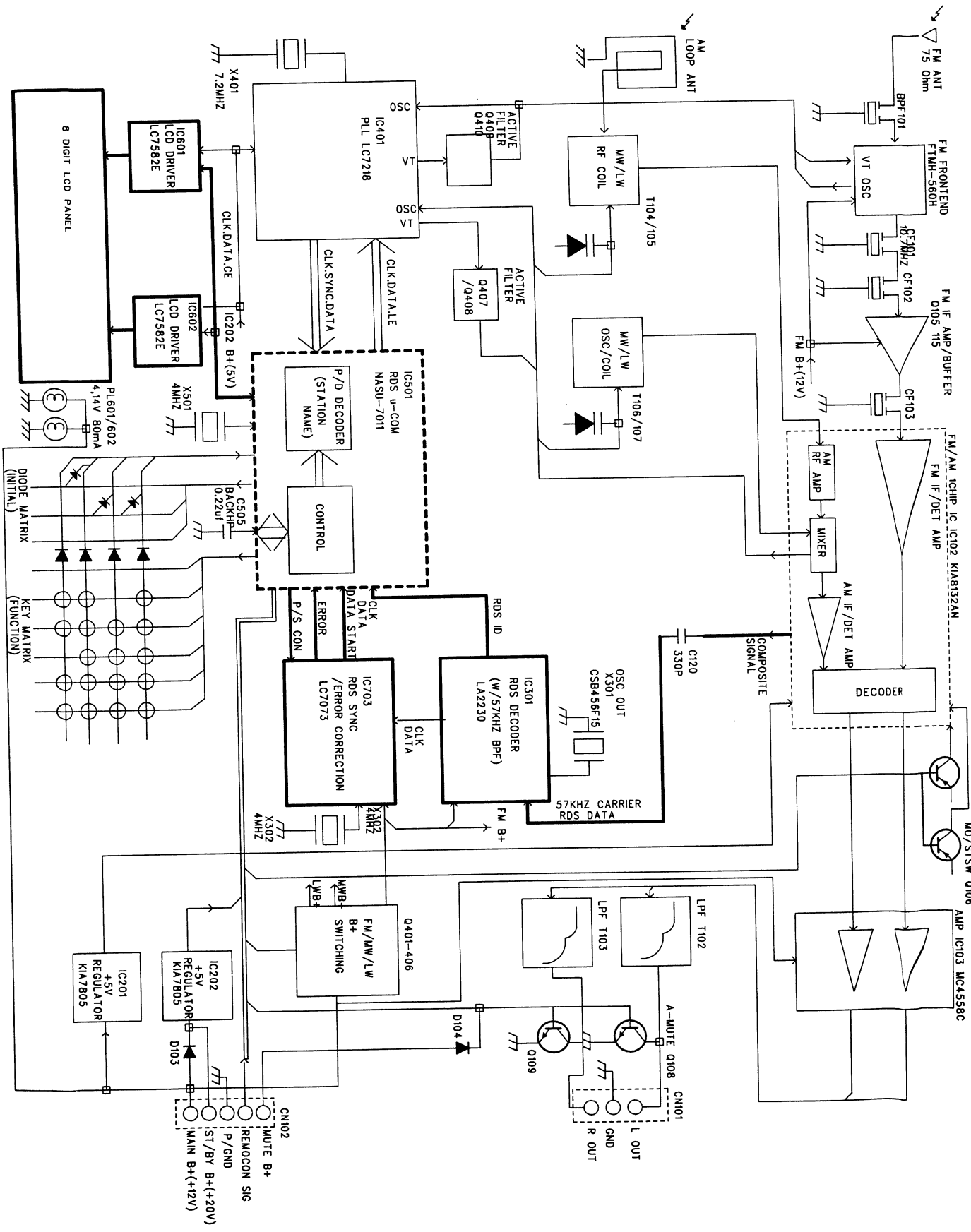
De-Emphasis deviation : -0.5dB +/- 1.0dB

Separation : >/= 74dB (At 1KHz 0dB)

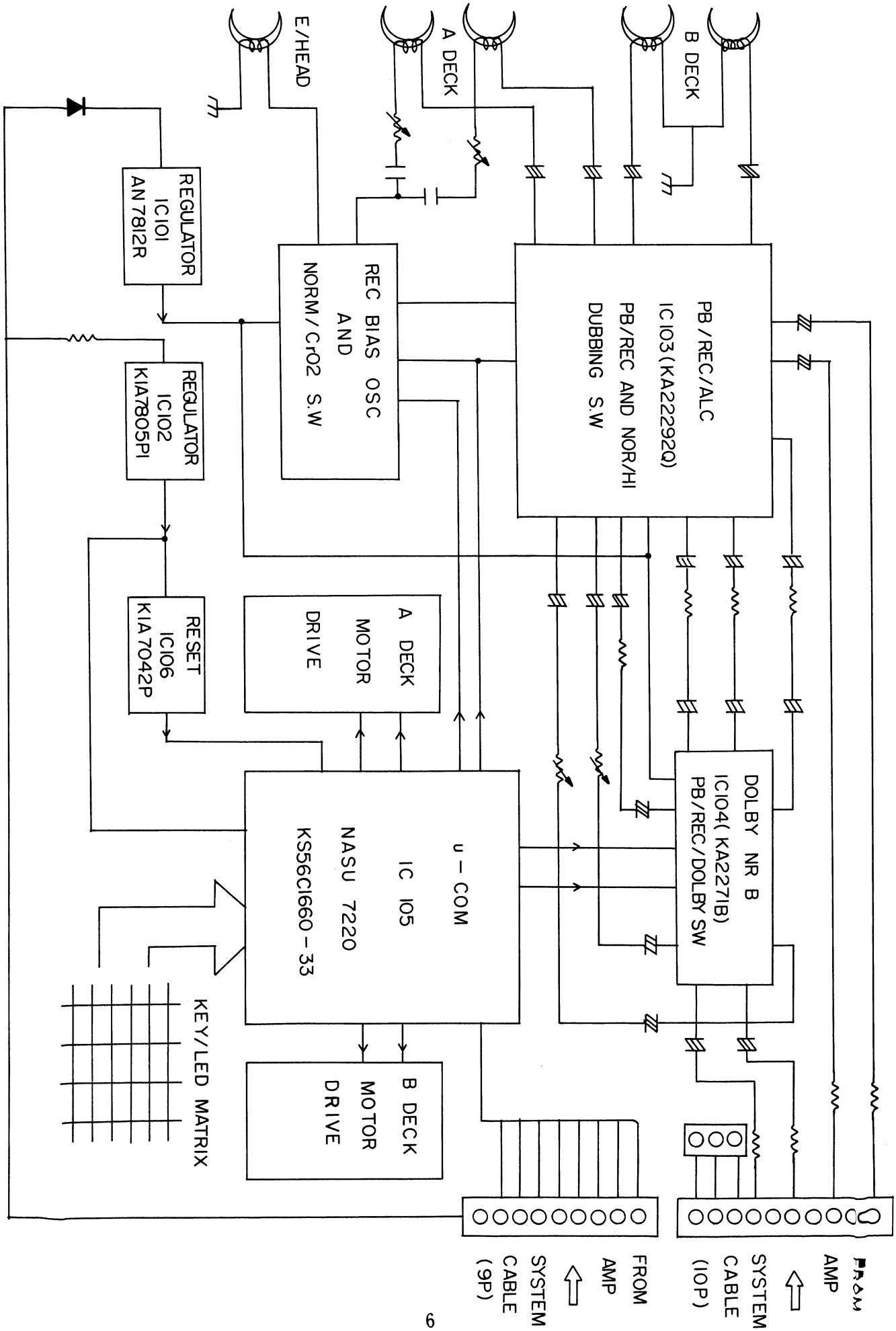
BLOCK DIAGRAM (AMP)



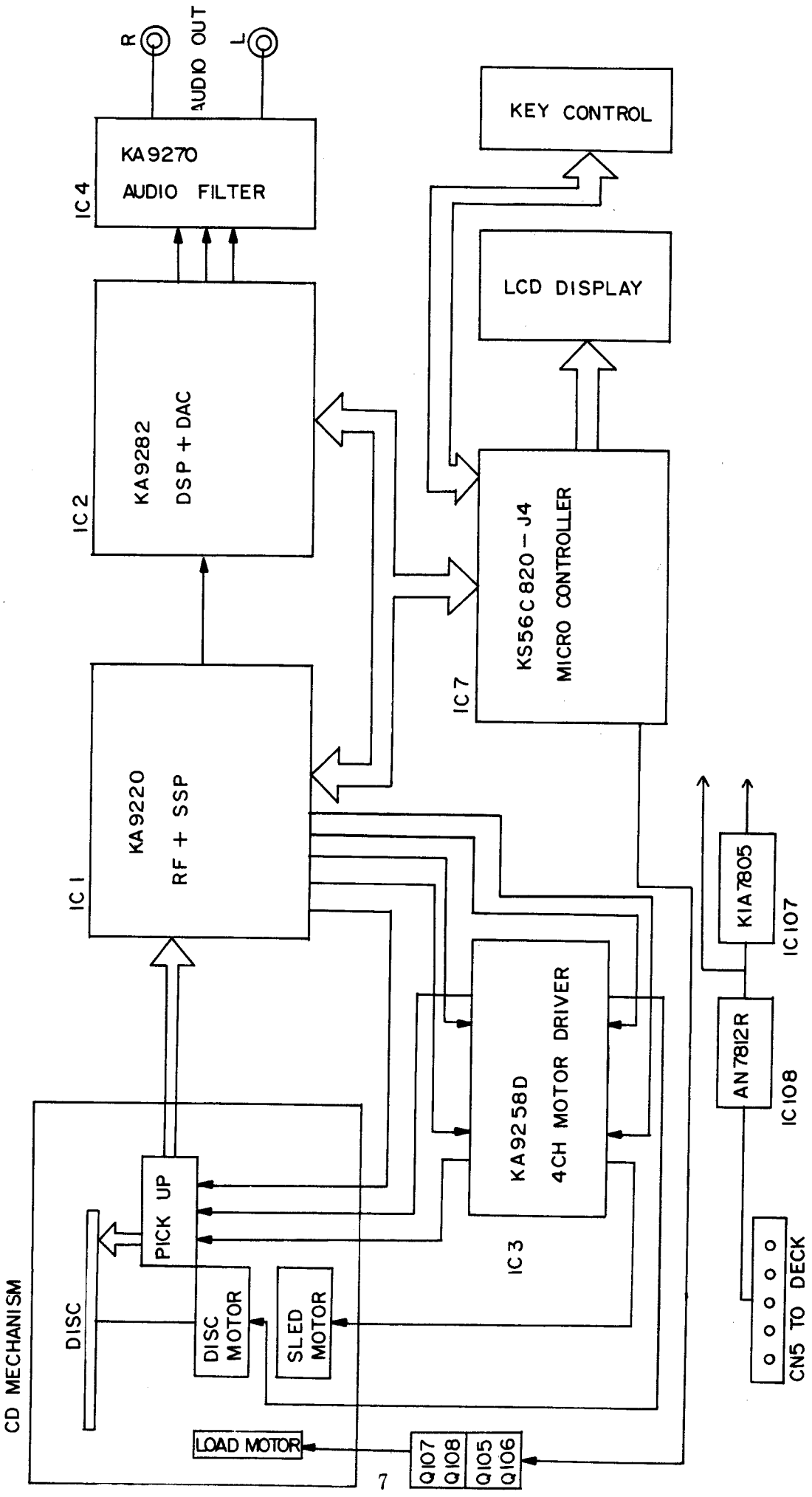
BLOCK DIAGRAM (TUNER)



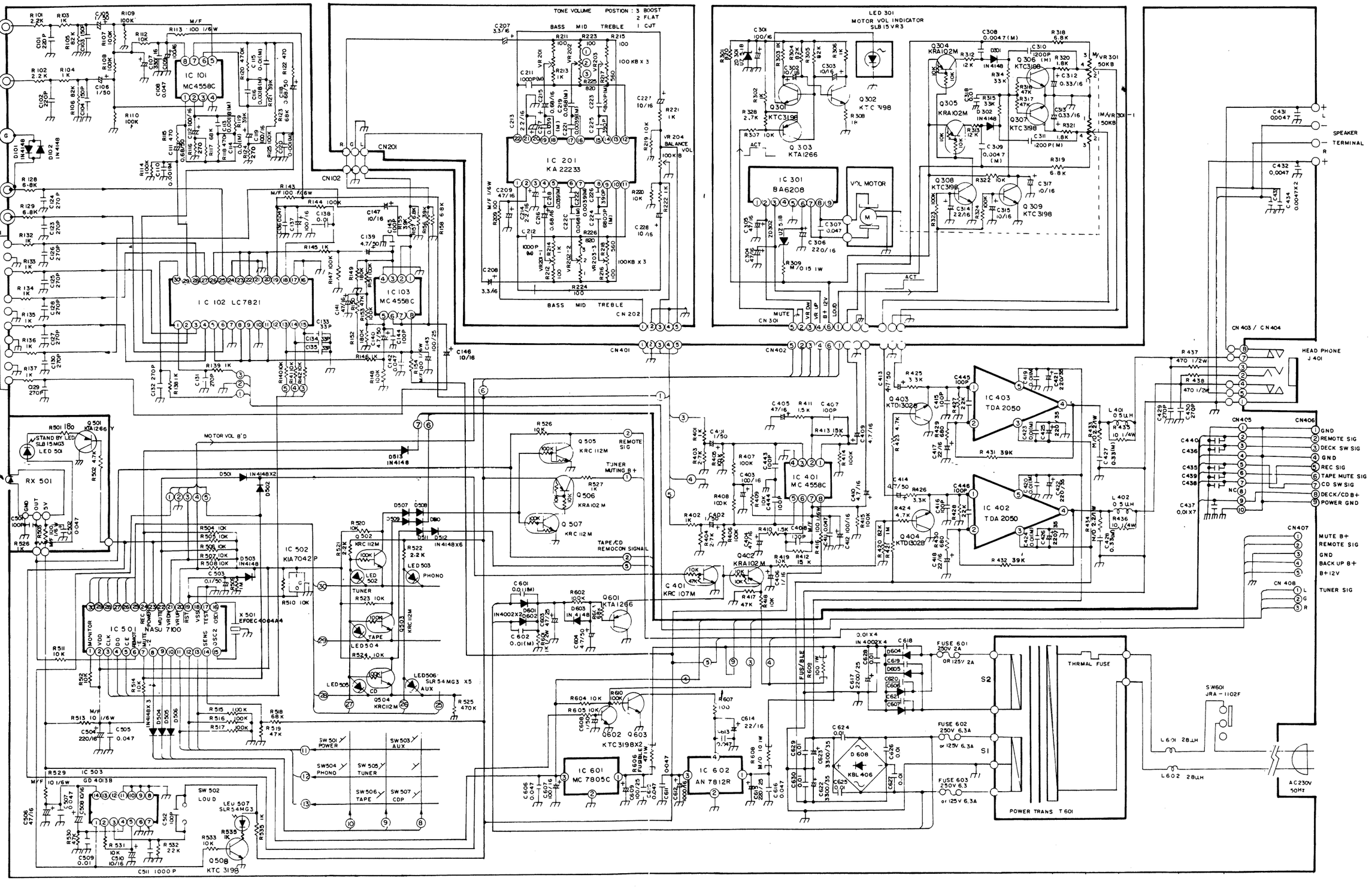
BLOCK DIAGRAM (DECK)



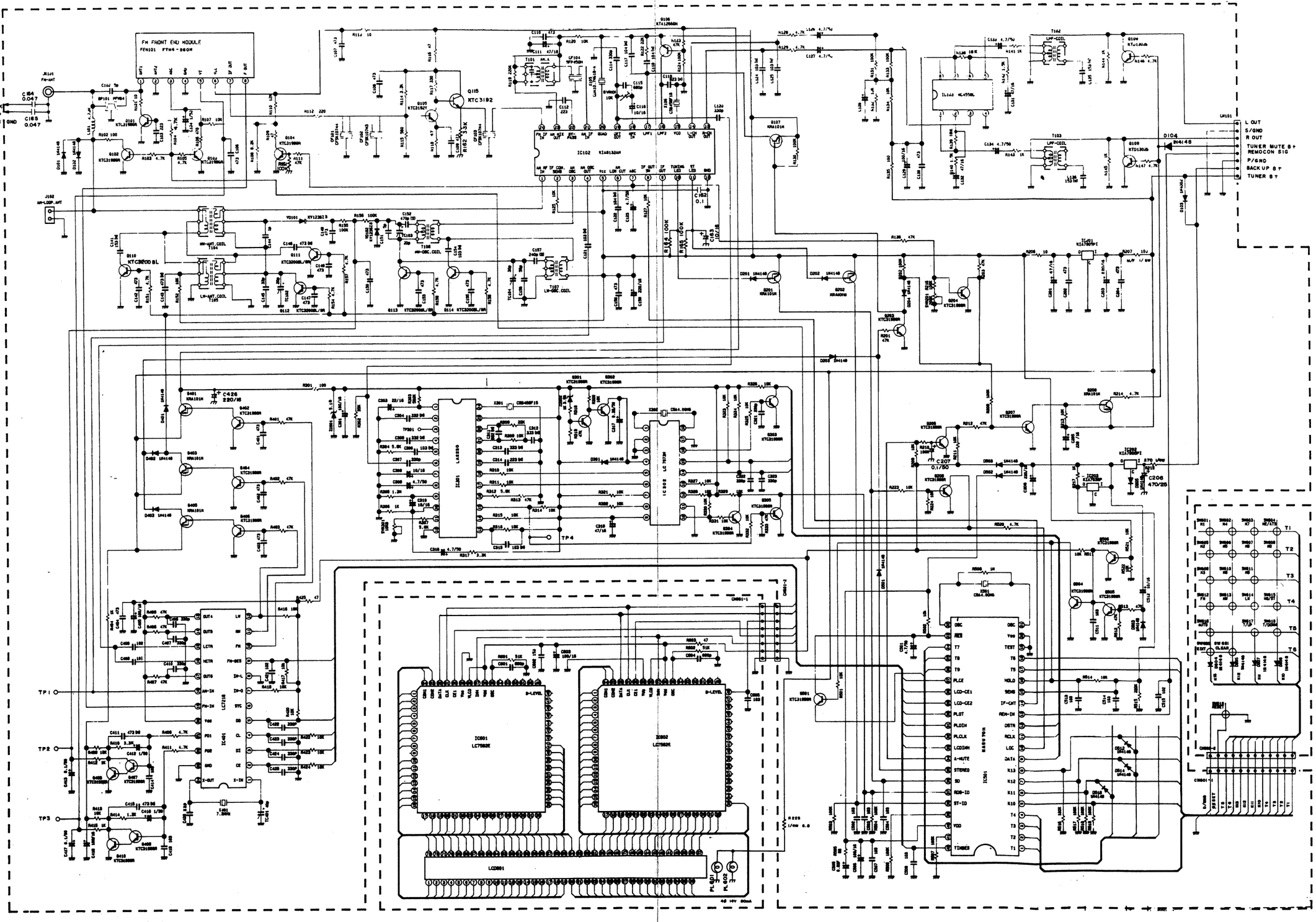
BLOCK DIAGRAM (CD)



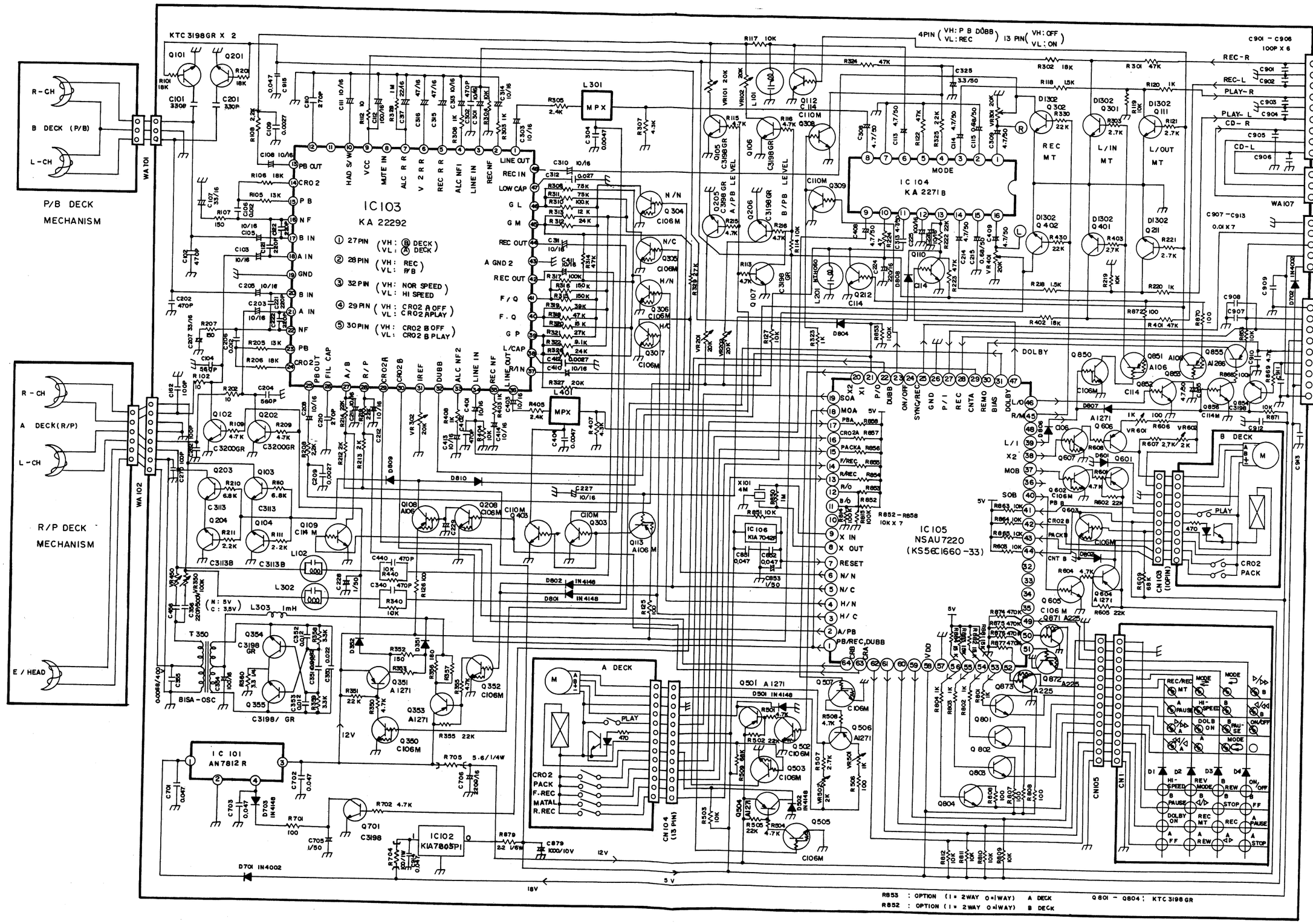
SCHEMATIC DIAGRAM (AMP)



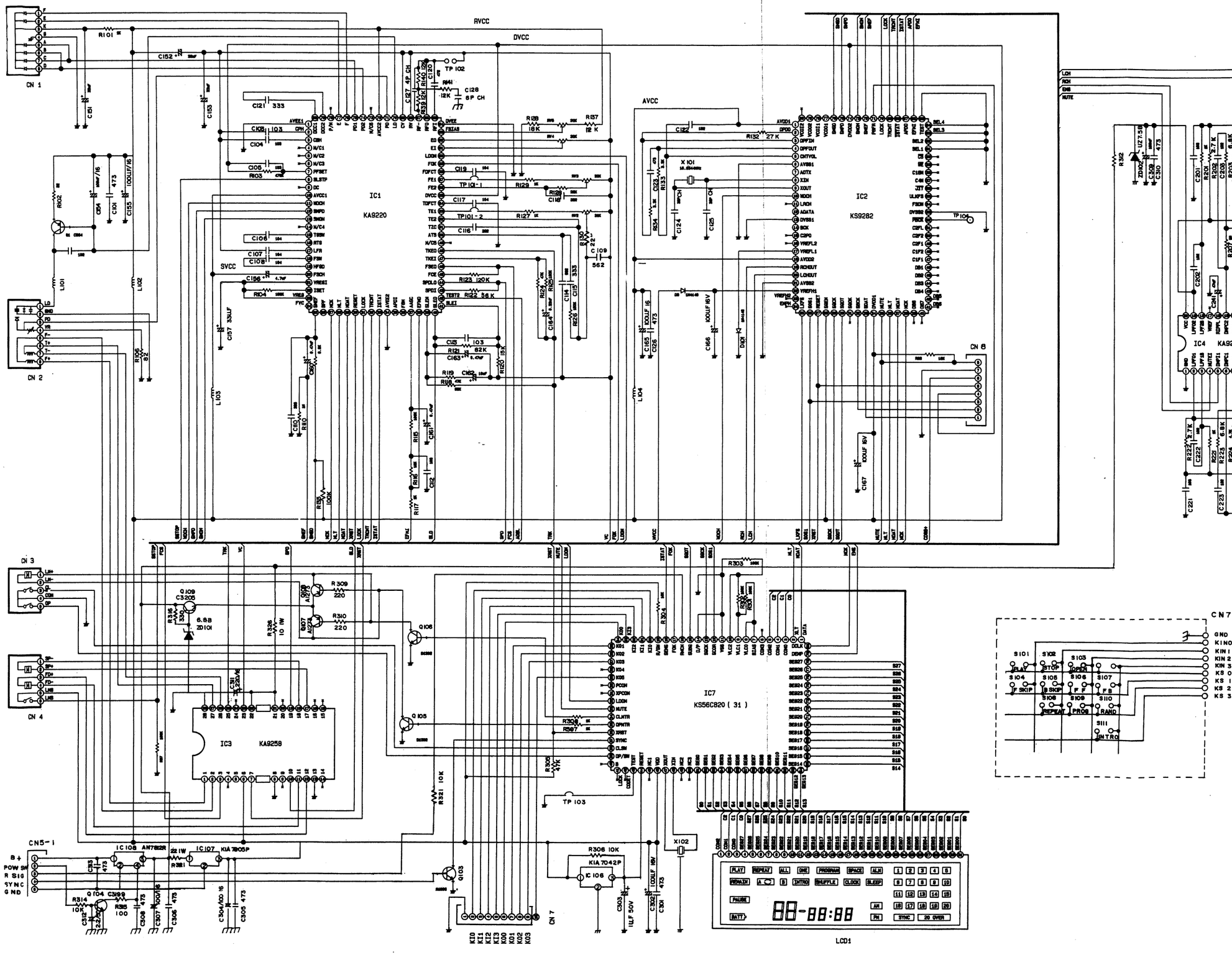
SCHEMATIC DIAGRAM (TUNER)



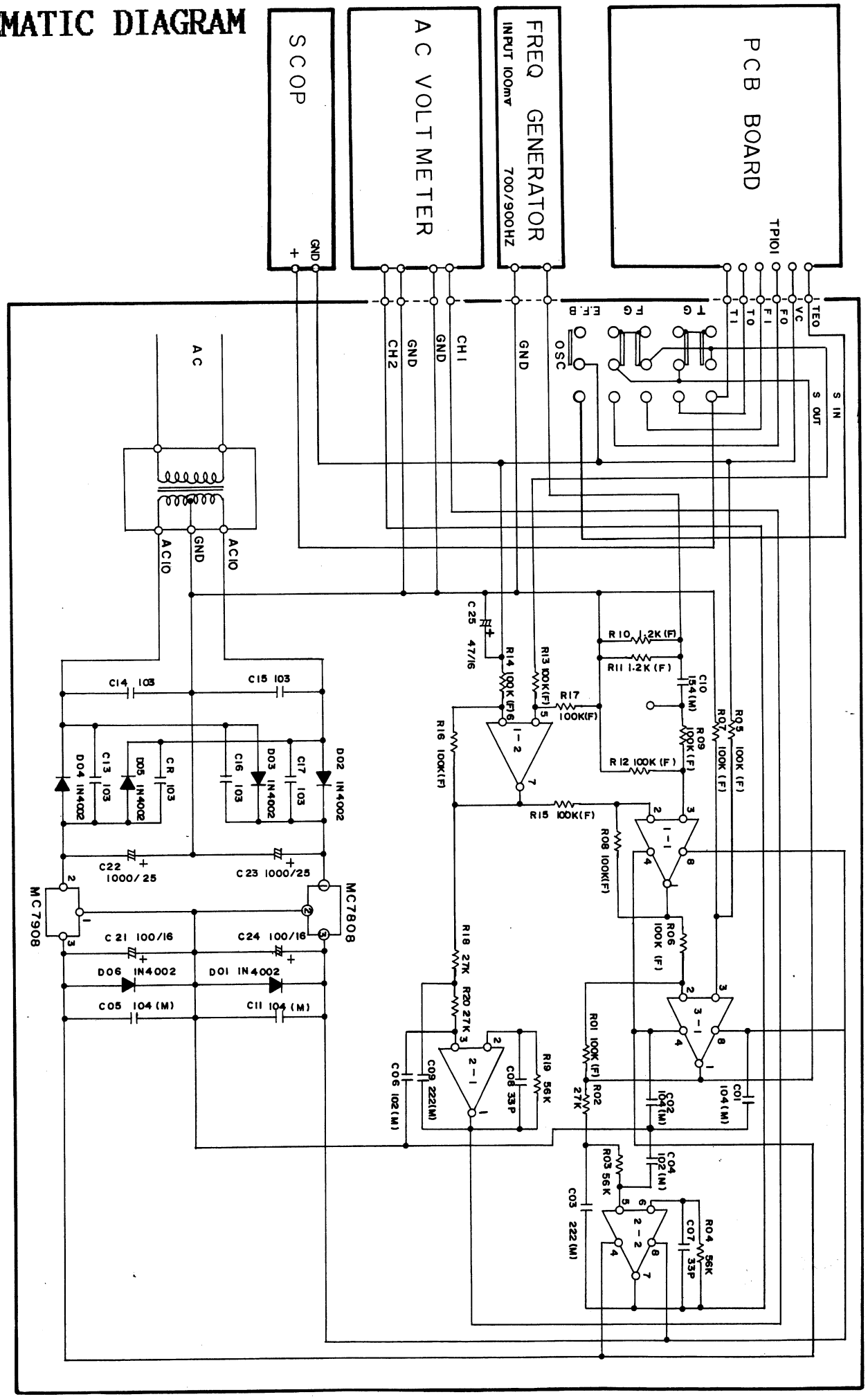
SCHEMATIC DIAGRAM (DECK)



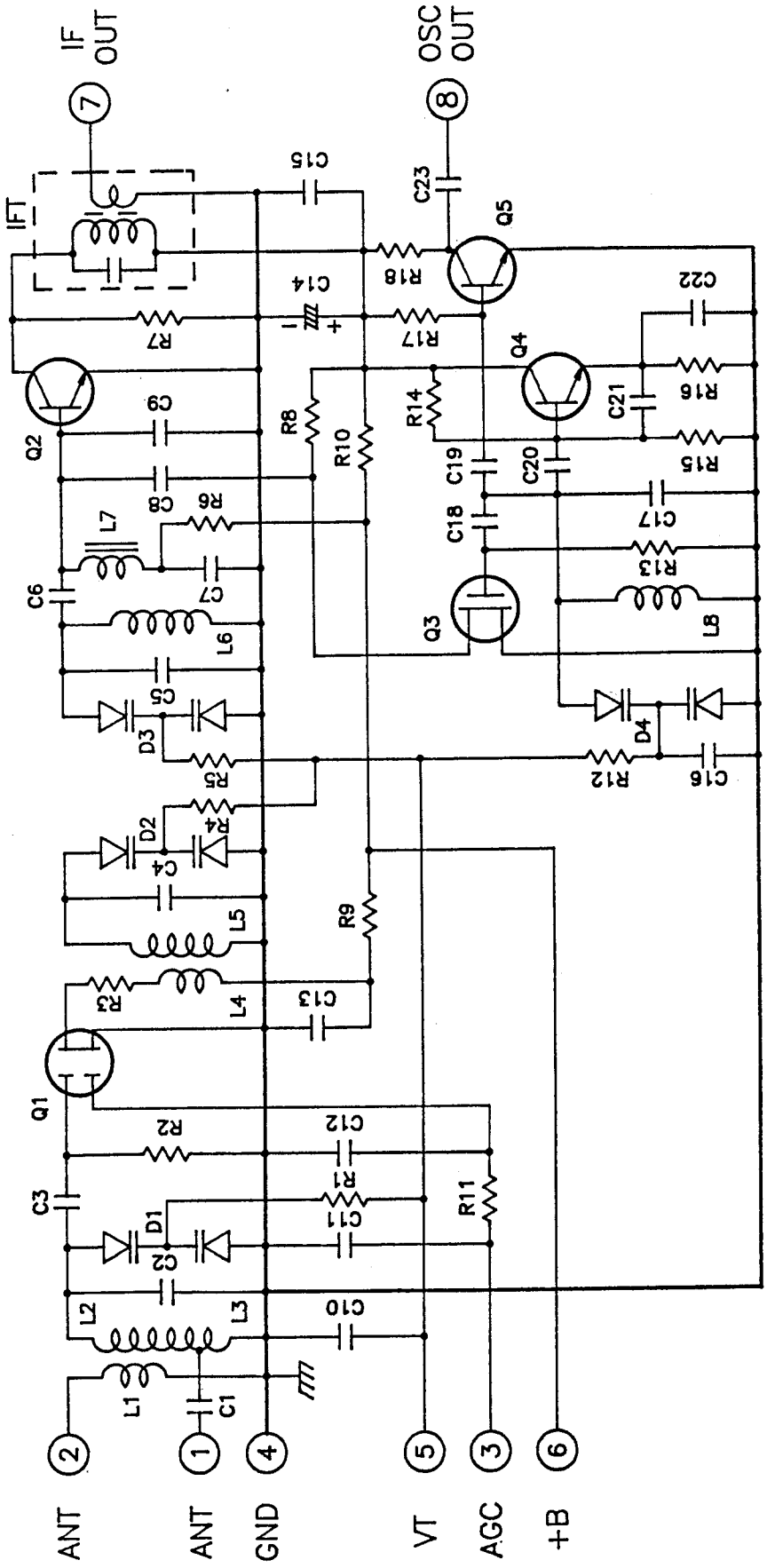
SCHEMATIC DIAGRAM (CD)



SCHEMATIC DIAGRAM

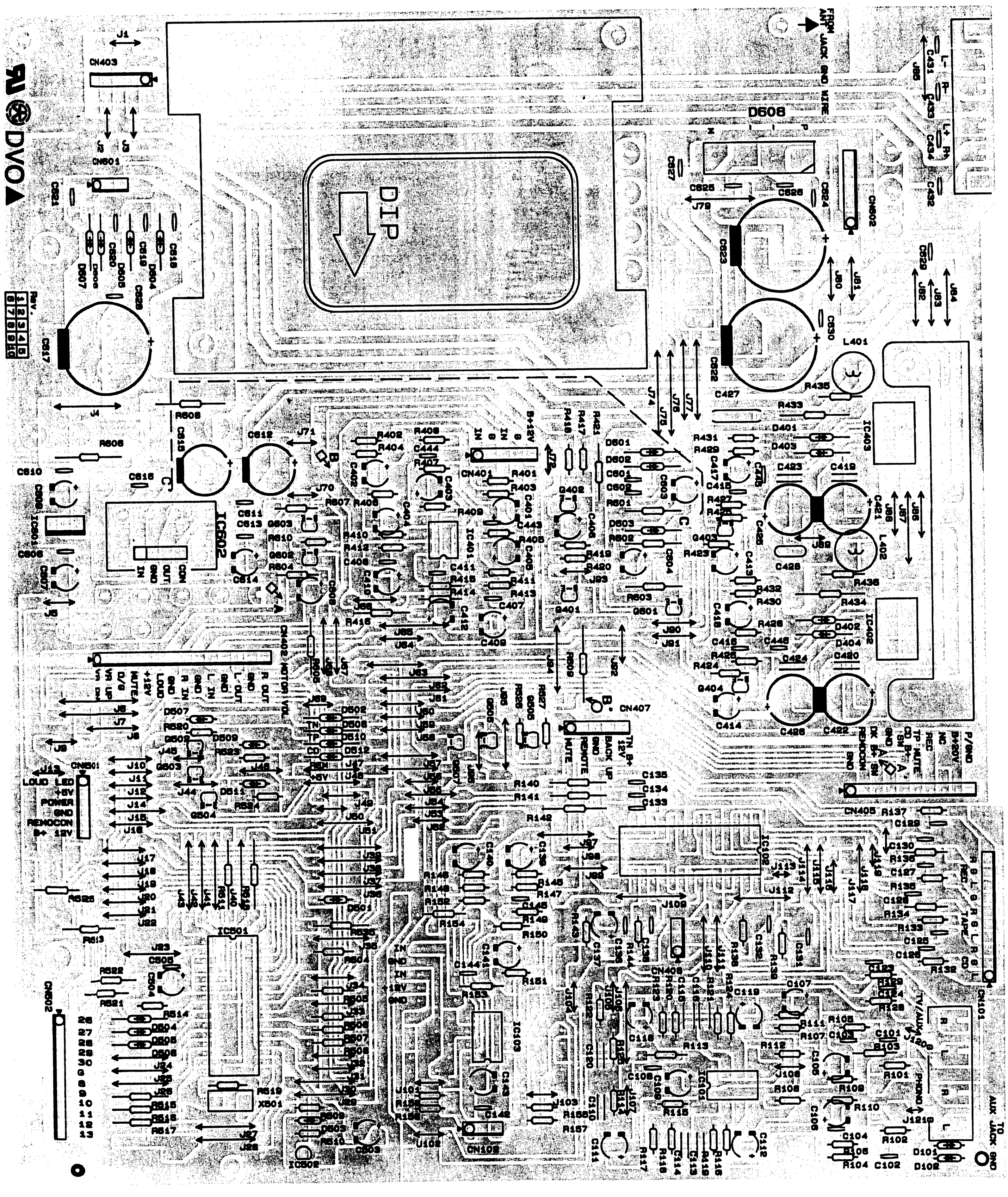


SCHEMATIC DIAGRAM (FM TUNER)



P.C.B LAYOUT (AMP)

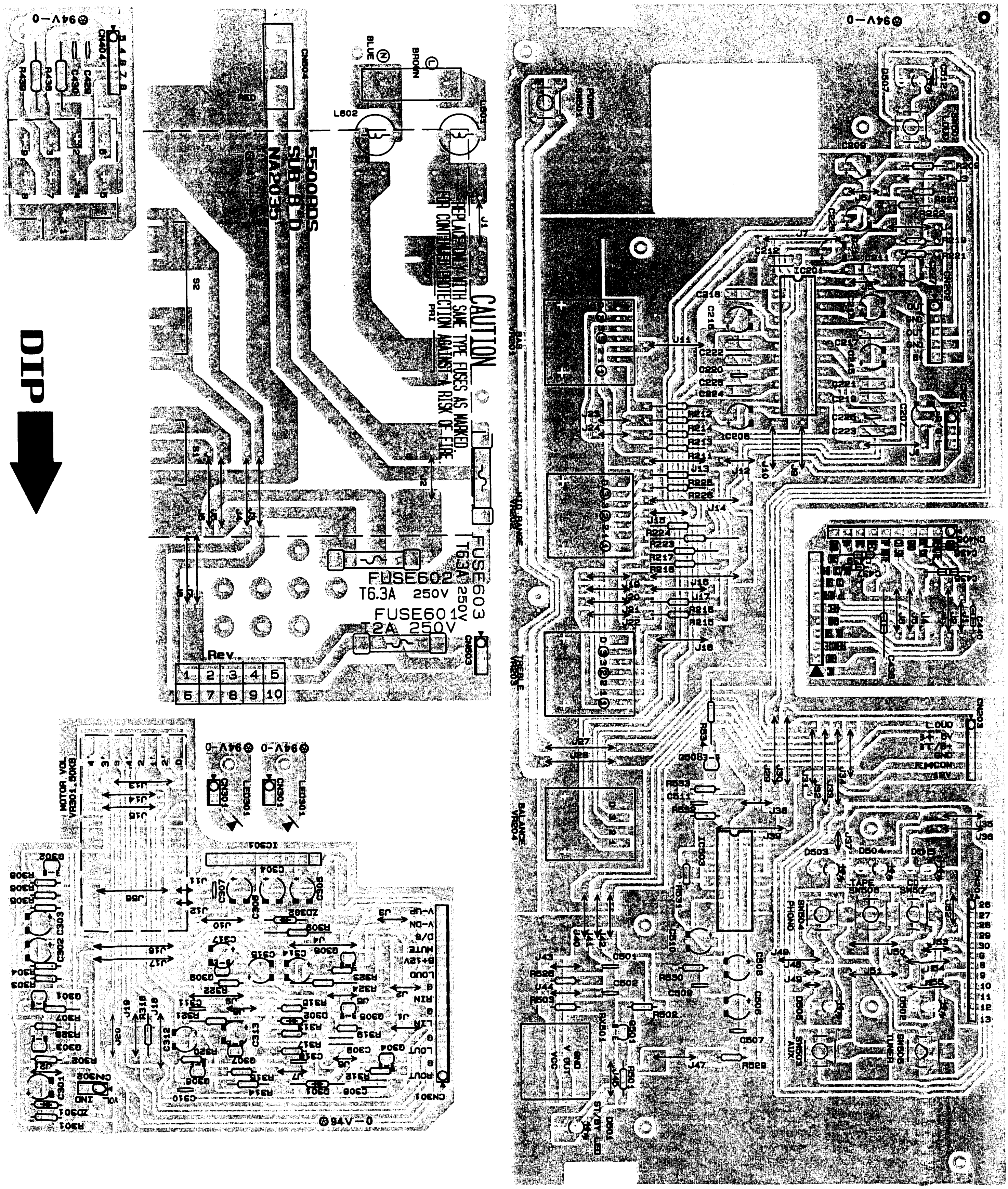
MAIN P.C.B



DIP
FROM ANT JACK GND WIRE
D608
CN403
CN601
CN602
CN401
CN402
CN405
CN406
CN407
CN501
CN502
CN101
CN102
IC602
IC601
IC401
IC402
IC403
IC501
IC502
IC101
IC102
IC103
X501
L401
L402
IN GND OUT CON
R OUT GND L OUT GND L IN GND R IN GND LOUD +12V MUTE/A D/S VR UP VR DN MOTOR VOL
LOUD LED +5V POWER GND REMOCON B+ 12V
TN B+ 12V BACK UP GND REMOTE MUTE
P/GND B+20V NC REC TP MUTE CD B+ SW GND DK B+ SW REMOCON GND
IN GND IN +12V GND
B+12V G IN G IN
R G L G R G L R G L
REC TAPE CD
TV/AUX
PHONO
TO AUX JACK GND
26 27 28 29 30 G 8 9 10 11 12 13
Rev.
1 2 3 4 5
6 7 8 9 10

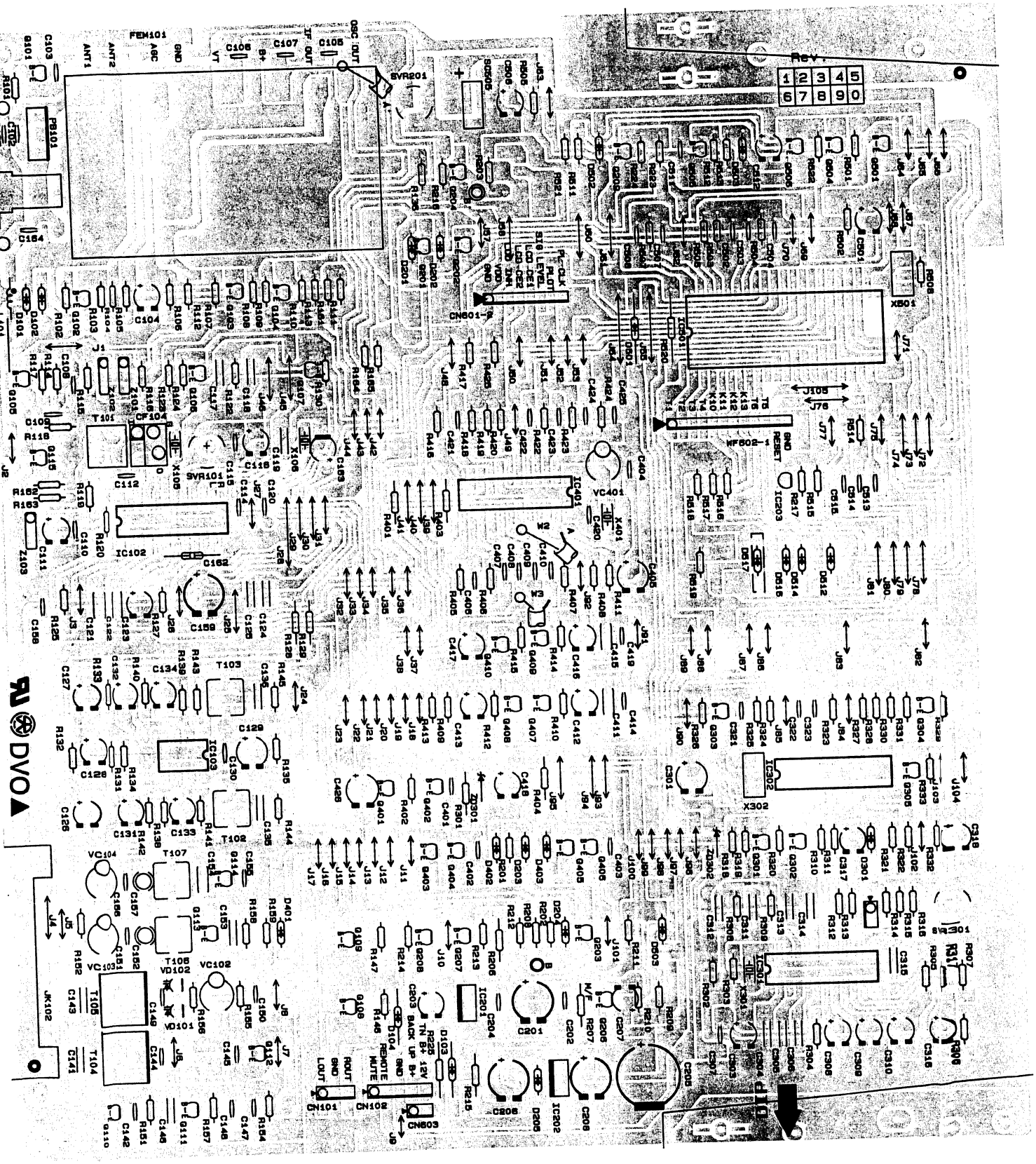
P.C.B LAYOUT (AMP)

SUB P.C.B


CAUTION
REPLACE ONLY WITH SAME TYPE FUSES AS MARKED.
FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE.
5500RDS
SUB B'D
NA2035
FUSE603 T6.3A 250V
FUSE602 T6.3A 250V
FUSE601 T2A 250V
DIP
BLUE
BROWN
Rev.
POWER SW501
BAS VR201
MID RANGE VR202
TREBLE VR203
BALANCE VR204
MOTOR VOL VR301 50KB
PHONO
TAPE
CD
AUX
TUNER
ST/BY LED

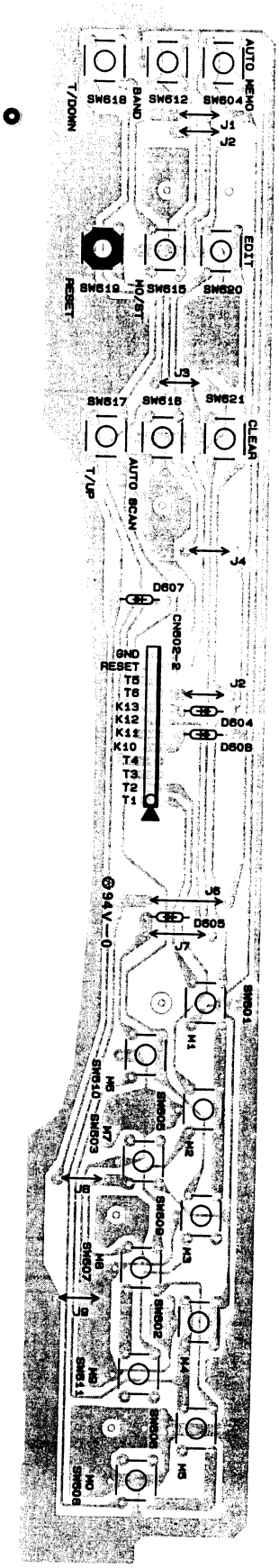
P.C.B LAYOUT (TUNER)

MAIN P.C.B

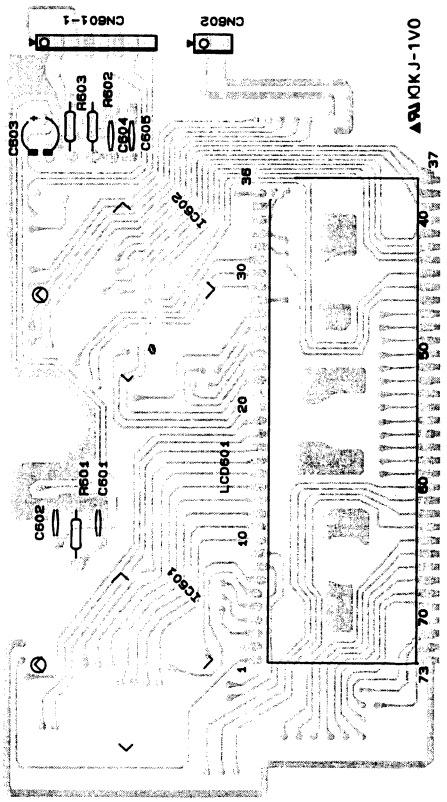


P.C.B LAYOUT (TUNER)

FRONT P.C.B

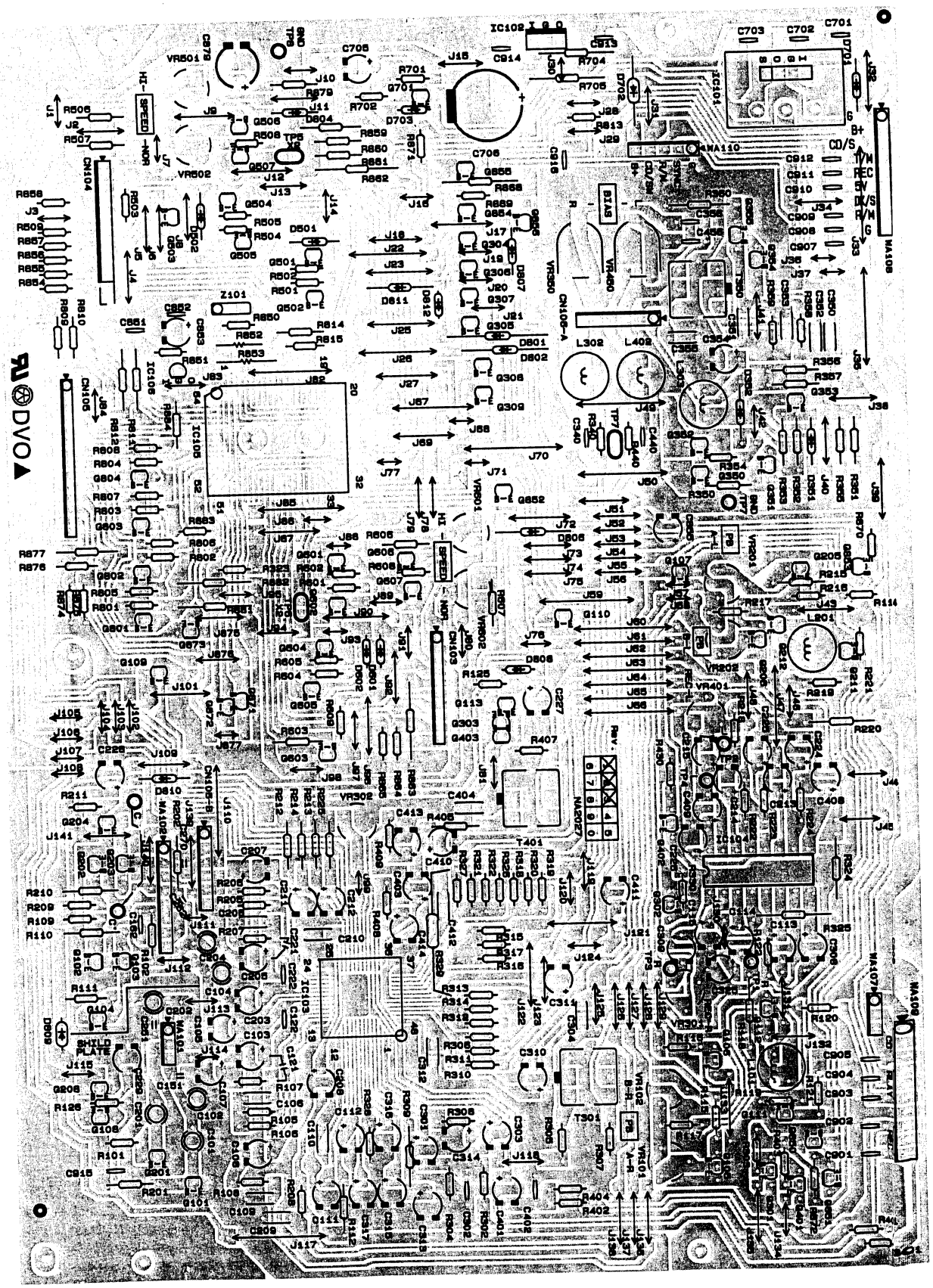


LCD P.C.B



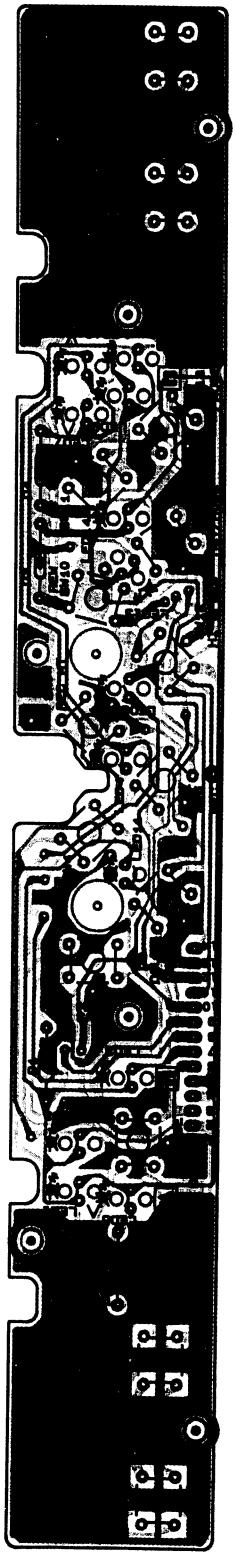
P.C.B LAYOUT (DECK)

MAIN P.C.B

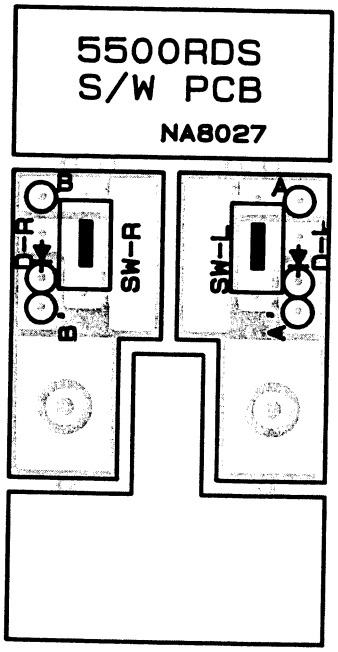


P.C.B LAYOUT (DECK)

FRONT P.C.B

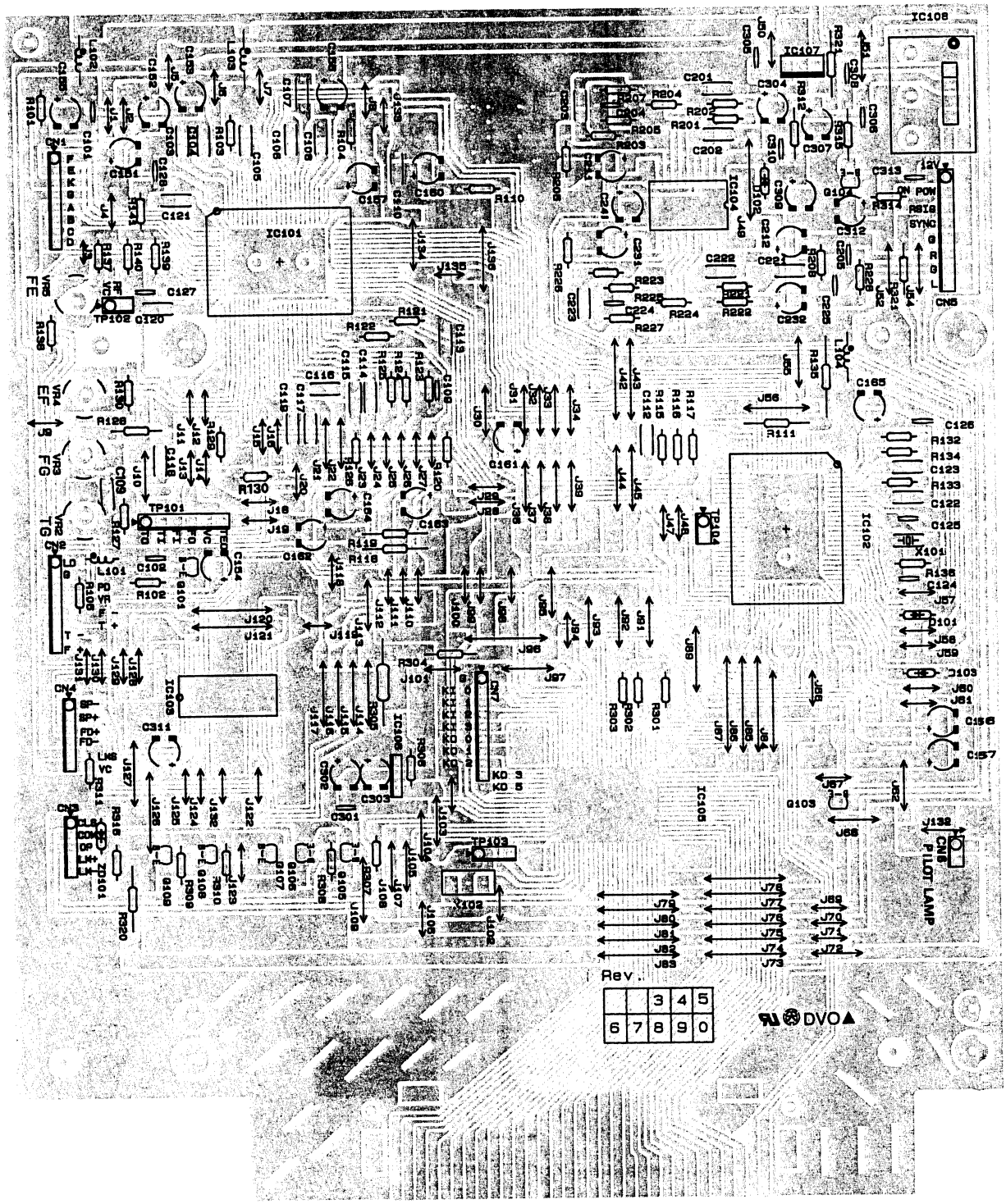


SWITCH P.C.B



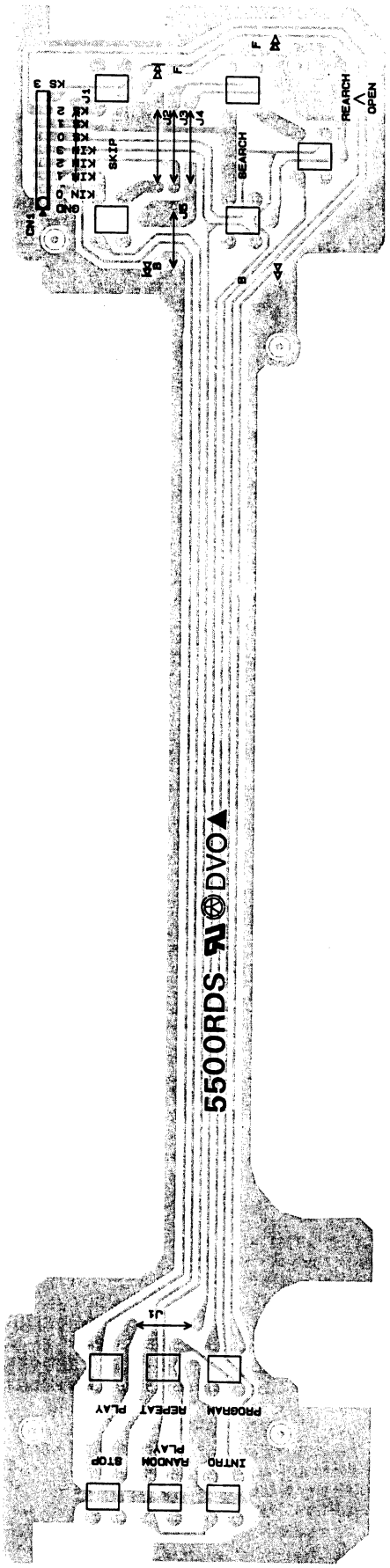
P.C.B LAYOUT (CD)

MAIN P.C.B

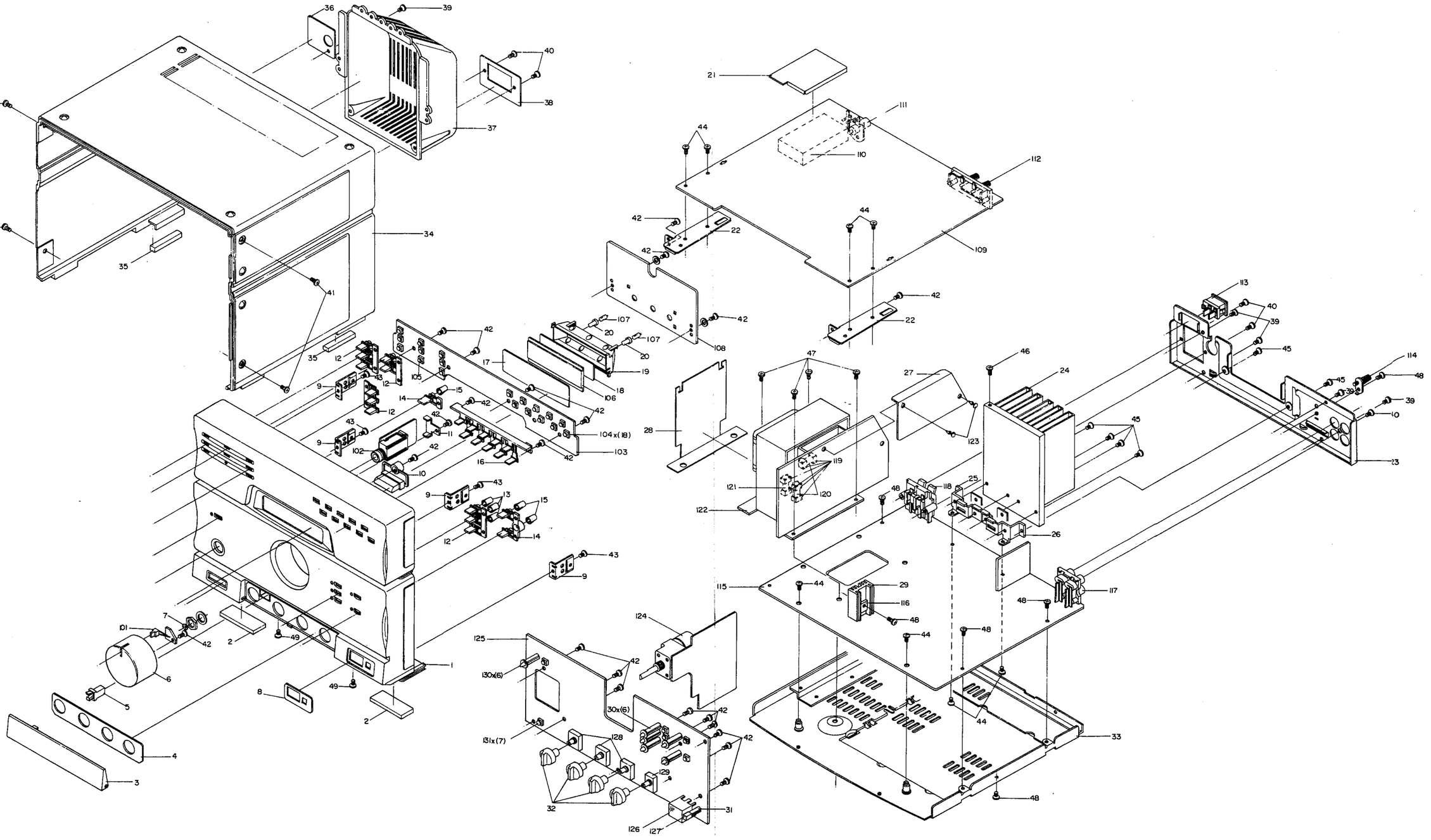


P.C.B LAYOUT (CD)

FRONT P.C.B



EXPLODED VIEW (AMP & TUNER)



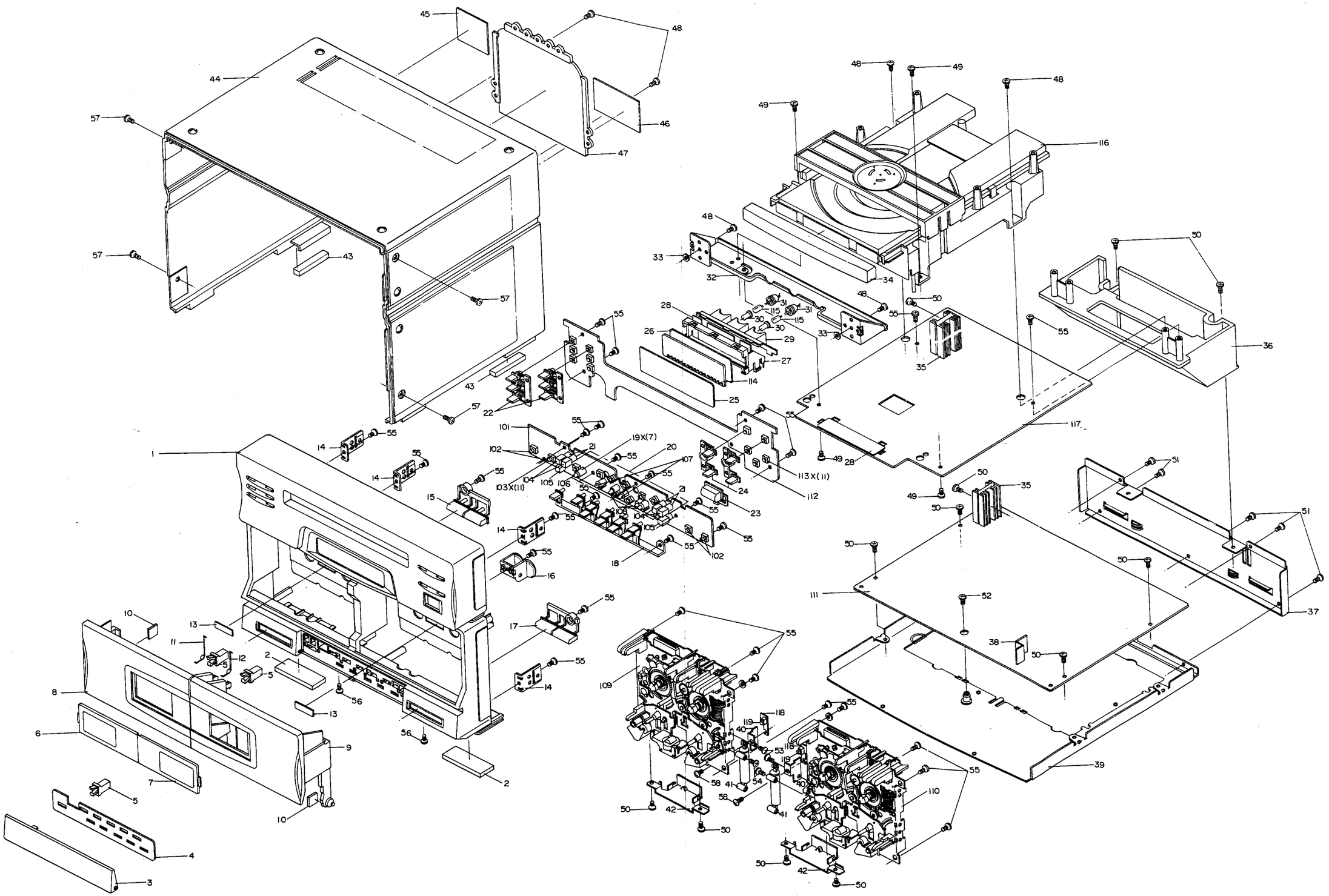
S500RDS MECHANICAL PARTS LIST (AMP & TUNER)

NO.	CODE NO	DESCRIPTION	SPECIFICATION	Q'TY
1	1250HA02	FRONT PANEL	HIPS	1
2	60072D39	FOOT RUBBER (FRONT)	CR RUBBER	2
3	1250KC04	CONTROL-DOOR	ACRYL	1
4	12503D11	CONTROL-PLATE (AMP)	LEXAN T0.3	1
5		PUSH LATCH (A TYPE)	AL701-3AA	1
6	8000016	VOLUME-KNOB	ABS BLK	1
7	6001ZD56	WIRE HOLDER SPRING	SUS-301 DIA1.0	1
8	12503D09	RX-WINDOW	PVC T0.5	1
9	1250SD14	BACK HOLDER BRKT	EGI T0.8	4
10	6001ID29	POWER KNOB	ABS BLK	1
11	1178D8528	BRACKET MIC JACK	EGI T0.8	1
12	6001IC20	REPEAT-KNOB	ABS BLK	4
13	6001IC20-1	REPEAT-KNOB,INSERT	ABS BLK	3
14	6001IC20	SKIP-KNOB	ABS BLK	1.5
15	6001IC24-1	SKIP-KNOB,INSERT	ABS BLK	3
16	6001IC16	PRESET-KNOB	ABS BLK	1
17	12503D12	LCD-WINDOW	ACRYL T0.5	1
18	60073D38	LCD BACK-PLATE	PC T0.5	1
19	6006LC35	LCD HOUSING (RDS)	ABS WHT	1
20		LAMP CAP	DIA4	2
21	6007XD43	TUNER SHIELD CASE	SPTE T0.3	1
22	6006SC17	PCB BRKT-L (ATS)	EGI T0.8	2
23	6007NB09	BACK-CHASSIS	EGI T1.0	1
24	1178D8306	HEAT-SINK (TR)	AL	1
25	6007TC24	IC-BRKT (L)	EGI T1.0	1
26	6007TC36	IC-BRKT (R)	EGI T1.0	1
27	60013D58	INSULATOR-PLATE	PVC T0.5	1
28	6006XD40	T/S SHIELD COVER	T0.35	1
29	6001QC33	HEAT-SINK (IC)	AL	1
30	1250LD06-4	LED-HOLDER	ABS BLK	6
31	1250LD06-3	LED-HOLDER	ABS BLK	1
32	6001ID23	BALANCE-KNOB	ABS BLK	4
33	6007NB08	MAIN-CHASSIS	EGI T1.0	1
34	6007GA07	BACK COVER	HIPS	1
35	60072D40	FOOT RUBBER (BACK)	CR RUBBER	2
36	60073D35	FM BACK COVER PLATE	PVC T0.5	1
37	6007MB29	H/SINK COVER	HIPS BLK	1
38	60073D24	AM BACK COVER PLATE	PVC T0.5	1
39		T/SCREW-2S	ZNB BH T3X8 (CUT)	5
40		T/SCREW-1S	ZNB BH T3X10	5
41		M/SCREW	ZNB(OVER HEAD) M3X8	4
42		T/SCREW-2S	ZNW BH T3X10	22
43		T/SCREW-2S	ZNW PH T3X10 (NO CUT)	4
44		M/SCREW	ZNW BH M3X6	8

S500RDS MECHANICAL PARTS LIST (AMP & TUNER)

NO.	CODE NO	DESCRIPTION	SPECIFICATION	Q'TY
45		M/SCREW	ZNB BH M3X14	6
46		T/SCREW-2S	ZNW BH T3X5 (CUT)	1
47		T/SCREW-2S	ZNW BH T4X8 (CUT)	4
48		T/SCREW-2S	ZNW BH T3X6 (CUT)	6
49		T/SCREW-2S	ZNB FH T3X8 (CUT)	2
101		LED	RED KLR205L	1
102	19172010	PHONE JACK	HLJ4306-01-3010	1
103		PCB-FRONT (TUNER)		1
104		SW TACT (TUNER)	EVQPBE05R	18
105		SW TACT (TUNER)	EVQPBE07R	1
106		L.C.D	HEI5250 TR	1
107		PILOT-LAMP	4DIA 14V 80MA	2
108		PCB-LCD (TUNER)		1
109		PCB-MAIN (TUNER)		1
110		FRONT END	FTH4-560H	1
111		FM ANT JACK	KPC-110	1
112		AM ANT TERMINAL	KAB-622(2P SCREW)	1
113	05476010	SWITCH-ROCKER	JRA-1102F	1
114	31218010	SCREW TERMINAL BOARD	S4011062	1
115		PCB-MAIN (AMP)	1.6TX225.5X197	1
116		IC-REGULATOR	+12V 2A AN7812R	1
117	19143010	PIN JACK BOARD	4P KJB-554	1
118	19173010	PUSH TERMINAL BOARD	4P KPB-144	1
119		FUSE CLIP		6
120		FUSE	5DIAX20 AC250V T6.3A	2
121		FUSE	5DIAX20 AC250V T2A	1
122	09258010	POWER TRANS		1
123		RIVET	DASR355	2
124	04934010	VR-MOTOR	RK16812MG-50KBX2	1
125		PCB-SUB (AMP)	1.6TX247X197	1
126	31342010	REMOCON MODULE	KRM-65MP	1
127		LED	GREEN KLG3305/N	1
128	04933010	VR-ROTARY	RK14K1270301-100KBX2	3
129	04932010	VR-ROTARY	RK11K1170301-100KB	1
130		LED	GREEN KLB226/N	6
131		SWITCH-TACT	EVQPBE05R	7

EXPLODED VIEW (DECK & CD)



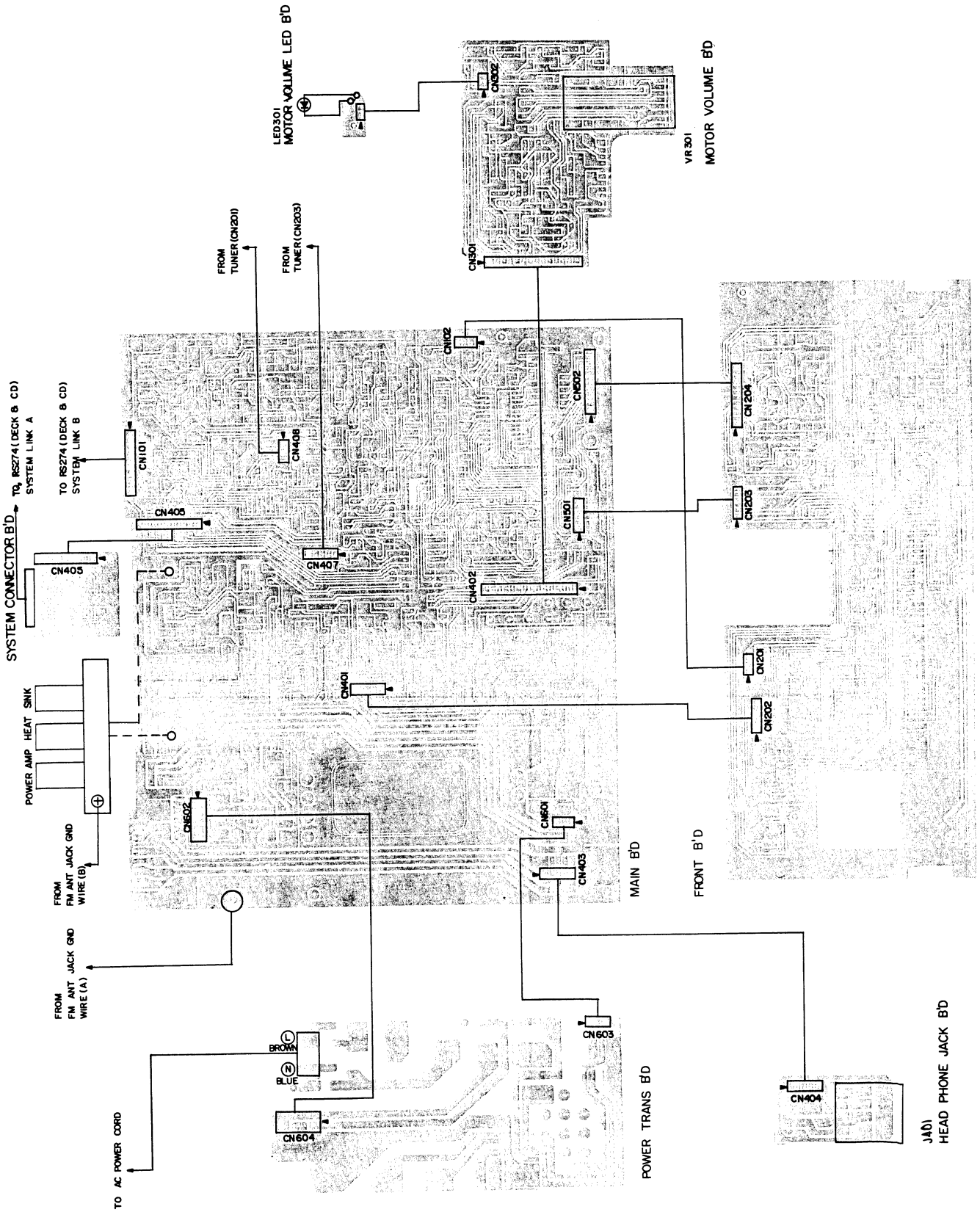
S500RDS MECHANICAL PARTS LIST (DECK & CD)

NO.	CODE NO	DESCRIPTION	SPECIFICATION	Q'TY
1	1250HA01	FRONT PANEL	HIPS	1
2	60072D39	FOOT RUBBER (FRONT)	CR RUBBER (BLK)	2
3	1250KC04	CONTROL-DOOR	ACRYL	1
4	12503D10	CONTROL-PLATE (DECK)	LEXAN T0.3	1
5		PUSH LATCH (A TYPE)	AL701-3AA	3
6	1250LD05	DOOR-WINDOW (L)	ACRYL	1
7	1250LD05	DOOR-WINDOW (R)	ACRYL	1
8	1250KB07	CASS DOOR-L	ABS BLK	1
9	1250KB08	CASS DOOR-R	ABS BLK	1
10		RUBBER-CUSHION,A	10X10XT2.5(BLK)	2
11	6006ZD33	DOOR SPRING-L	SUS-301 DIA0.5	1
12	6006ZD34	DOOR SPRING-R	SUS-301 DIA0.5	1
13		TAPE MIRROR STICKER	23.5X6.5	2
14	1250SD14	BACK HOLDER BRKT	EGI T1.0	4
15	6001IC27	FUNCTION-KNOB (L)	ABS BLK	1
16	6006UC18	CASS DOOR HOLDER BRKT	SBHG T1.0	1
17	6001IC27	FUNCTION-KNOB (R)	ABS BLK	1
18	6001IC16	PRE-SET KNOB	ABS BLK	1
19	1250KC06-2	LED-HOLDER	ABS BLK	7
20	1250KC06-5	LED-HOLDER	ABS BLK	2
21	1250KC06-1	LED-HOLDER	ABS BLK	4
22	6001IC24	REPEAT-KNOB	ABS BLK	2
23	6001ID26	OPEN-KNOB	ABS BLK	1
24	6001IC20	SKIP-KNOB	ABS BLK	2
25	12503D12	LCD-WINDOW	ACRYL T0.5	1
26	60073D38	LCD BACK-PLATE	PC T0.5	1
27	6007LC13	LCD HOUSING (CD)	ABS WHT	1
28	60073D42	LCD LIGHTING PLATE	PC T0.5	2
29	6007LC12	LCD COVER (CD)	ABS WHT	1
30		LAMP CAP	DIA 4	2
31	1107D6072	LAMP HOLDER	SILICON RUBBER(WHT)	2
32	1250SC13	CD DECK BRKT	SBHG T1.0	1
33		FIBER-WASHER	FIBER RED T1.0	2
34	1250KC03	CD-DECORATION	ABS BLK	1
35	1178D8306	HEAT-SINK (TR)	AL	2
36	6006LB16	CD MECH SUPPORT	HIPS BLK	1
37	6006WB03	BACK-CHASSIS	BLK EGI T1.0	1
38	1250SD15	SHIELD-PLATE	SPTE T0.3	1
39	6006NB02	MAIN-CHASSIS	EGI T1.0	1
40	1250SD17	S/W-BRKT (L/R)	EGI T1.0	2

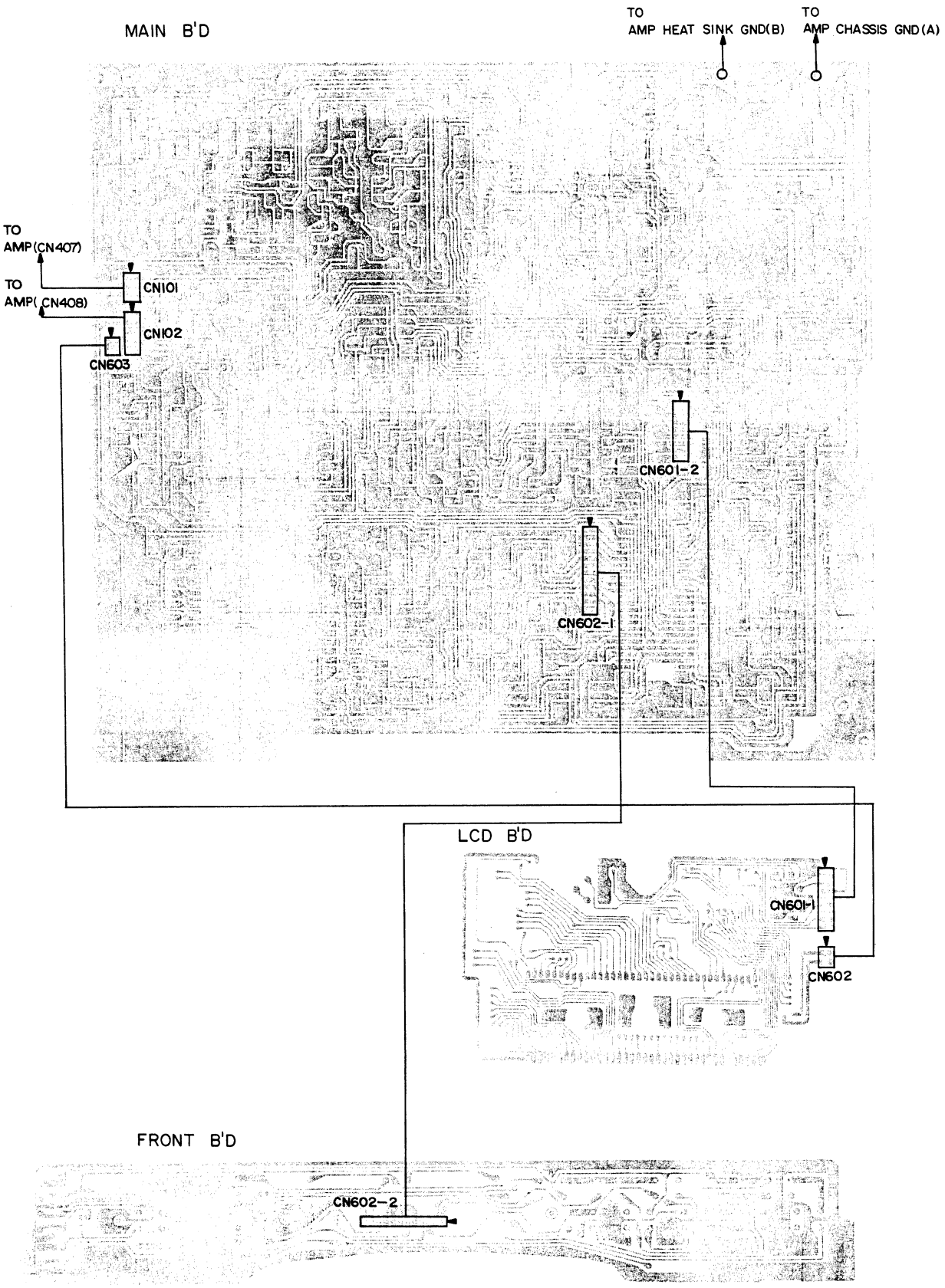
S500RDS MECHANICAL PARTS LIST (DECK & CD)

NO.	CODE NO	DESCRIPTION	SPECIFICATION	Q'TY
41		AIR-DAMPER	RX-235(H)	2
42	6006XD39	DECK SHIELD CASE	SPTE T0.3	2
43	60072D40	FOOT RUBBER (BACK)	CR RUBBER (BLK)	2
44	6007GA07	BACK COVER	HIPS	1
45	60073D35	FM BACK COVER PLATE	PVC T0.5	1
46	60073D34	AM BACK COVER PLATE	PVC T0.5	1
47	6006MB31	TRIM COVER	HIPS BLK	1
48		T/SCREW-1S	ZNB BH T3X14	6
49		M/SCREW	ZNW BH M3X8	4
50		T/SCREW-2S	ZNW BH T3X6(NO CUT)	12
51		T/SCREW-2S	ZNB BH T3X6(CUT)	5
52		M/SCREW	ZNW BH M3X4	1
53		T/SCREW	ZNB PH T2.6X5	2
54	60035D07	PIVOT SCREW	ZNW BH TT2.6X14	2
55		T/SCREW-2S	ZNW BH T3X8(NO CUT)	29
56		T/SCREW-2S	ZNB FH T3X8(CUT)	2
57		M/SCREW	ZNB M3X8(OVER HEAD)	4
58		M/SCREW	ZNB BH M2.6X5	2
101		PCB-FRONT (DECK)		1
102		TACT SWITCH (DECK)	EVQPBE07R	4
103		TACT SWITCH (DECK)	EVQPBE05R	11
104		LED-GREEN (DECK)	KLG3305N/SLB55MG	4
105		LED-AMBER (DECK)	SLB55DU	2
106		LED-AMBER (DECK)	KLA226	2
107		LED-GREEN (DECK)	KLG226	2
108		LED-RED (DECK)	KLR226	3
109	02208010	DECK-MECHANISM	CMAL2Z038A (R/P)	1
110	02209010	DECK-MECHANISM	CMAL2Z037A (P/B)	1
111		PCB-MAIN (DECK)		1
112		PCB-FRONT (CD)		1
113		TACT SWITCH (CD)	EVQPBE05R	11
114		CD LCD	HEI-1031D	1
115		LAMP	14V 80MA	2
116		CD MECHANISM	SMC-002	1
117		PCB MAIN (CD)		1
118		PCB-SW (DECK)	PCBL/PCBR 20X41.6	1
119		TACT SWITCH (DECK)	JTP1250	2

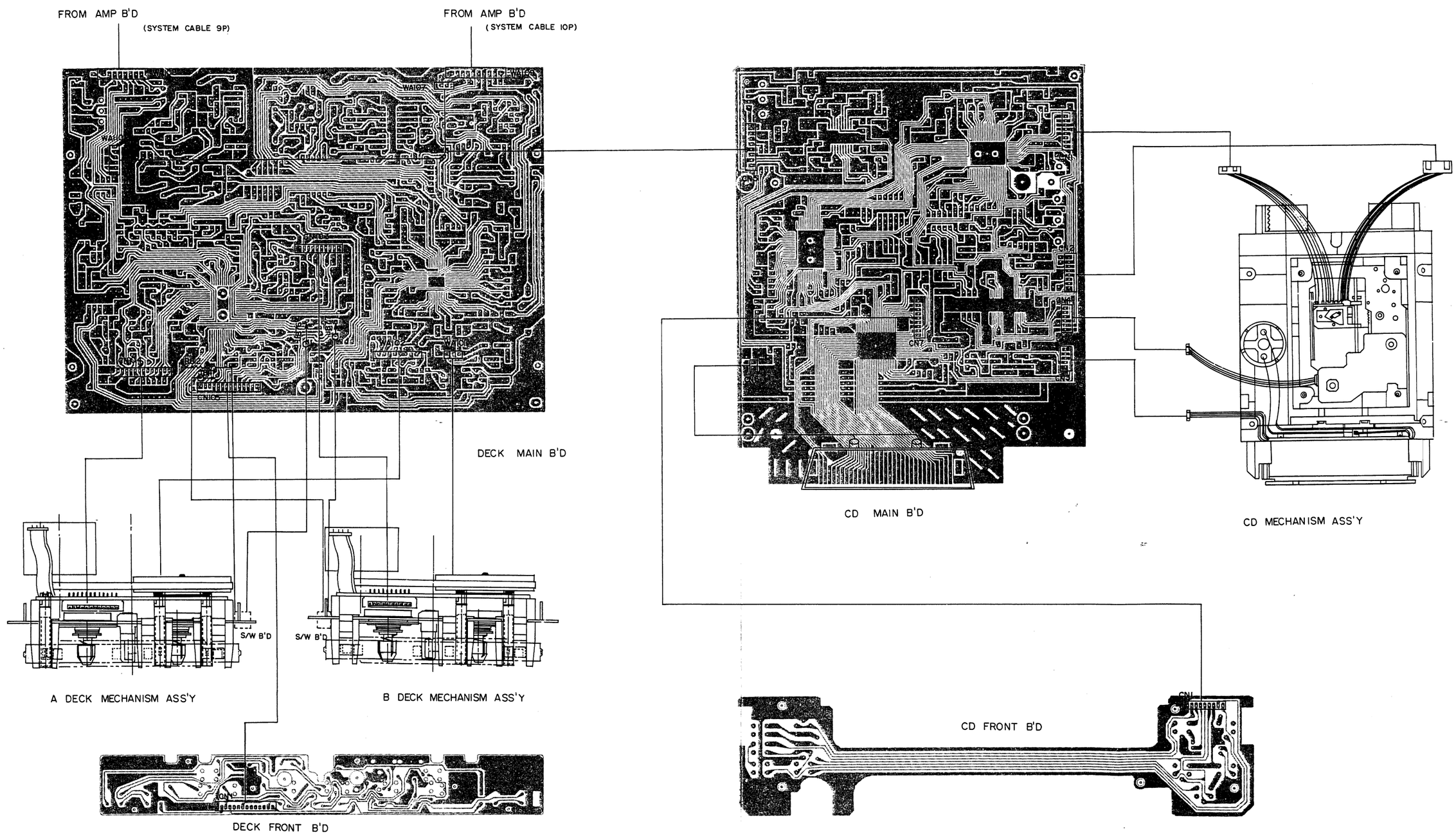
WIRING DIAGRAM (AMP)

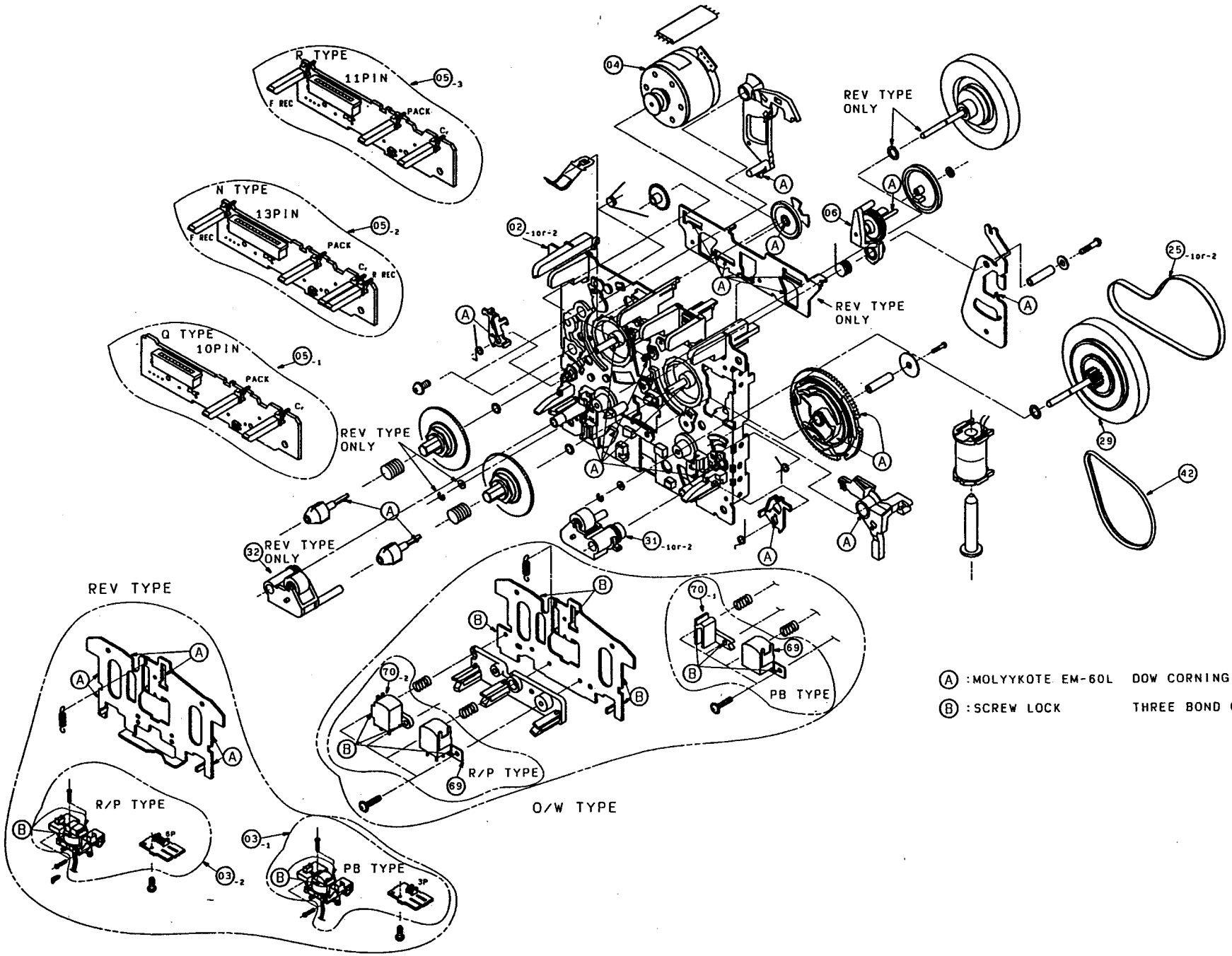


WIRING DIAGRAM (TUNER)

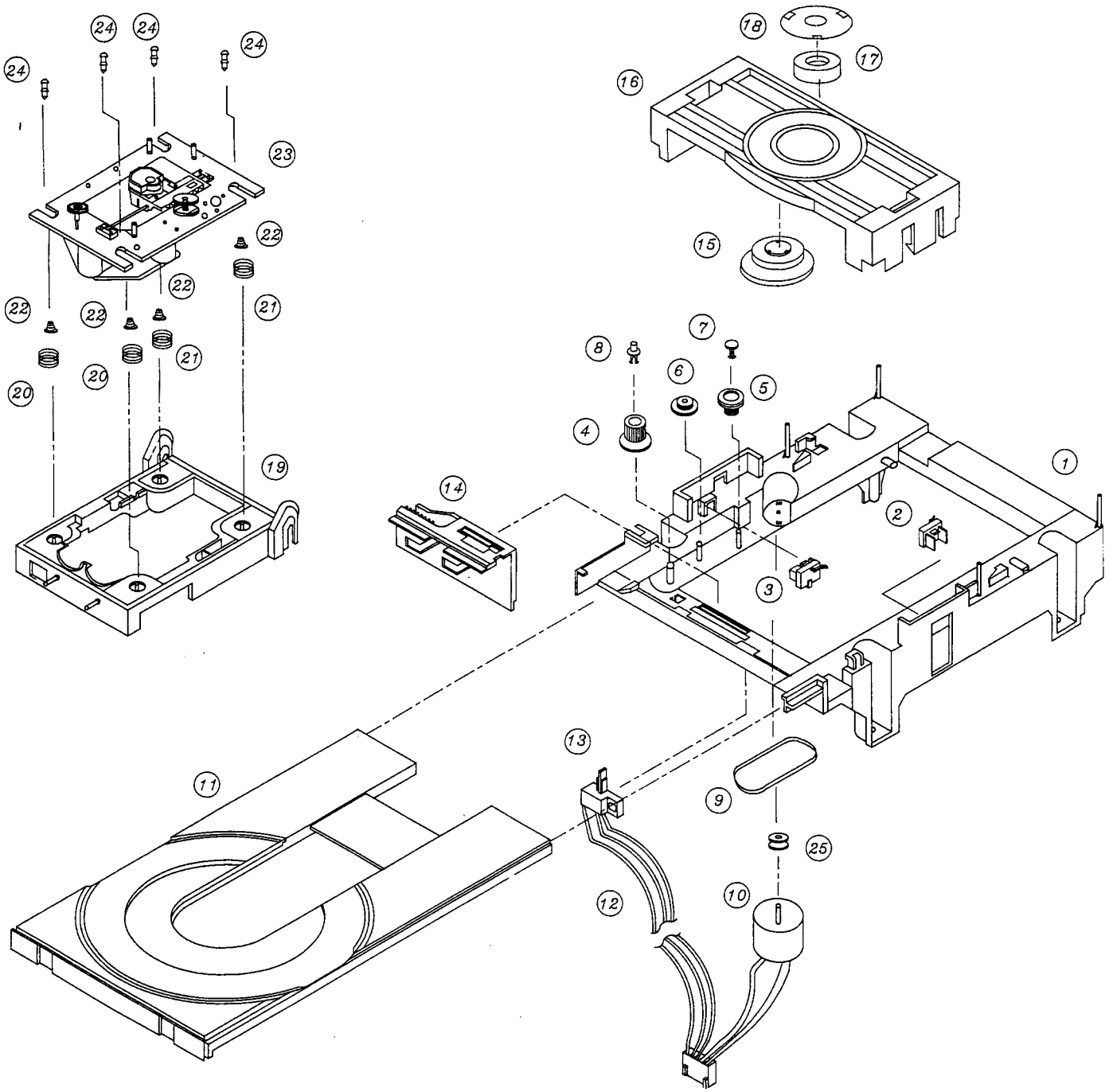


WIRING DIAGRAM (DECK & CD)




R TYPE
11PIN
05-3
F REC
PACK
C
N TYPE
13PIN
05-2
F REC
PACK
C
R REC
Q TYPE
10PIN
05-1
PACK
C
04
REV TYPE ONLY
A
06
02-10r-2
25-10r-2
29
42
31-10r-2
32
REV TYPE ONLY
REV TYPE
R/P TYPE
03-1
03-2
SP
PB TYPE
3P
B
70-2
69
R/P TYPE
O/W TYPE
70-1
69
PB TYPE
Ⓐ :MOLYYKOTE EM-60L DOW CORNING CO..LTD.
Ⓑ :SCREW LOCK THREE BOND CO..LTD.

CD MECHANISM EXPLODED VIEW (SMC-002)



DECK MECHANISM EXPLODED VIEW PARTS LIST (CMAL6Z023A,024A/CMAL2Z037A,038A)

NO.	PARTS NO.	DESCRIPTION	Q'TY	NOTE
02-1	F612-201	CHASSIS BASE BLK	1	CMAL2Z037,038
02-2	F612-202	CHASSIS BASE BLK	1	CMAL6Z023,024
03-1	F513-740	PLATE HD BLK	1	CMAL2Z037
03-2	F513-724	PLATE HD BLK	1	CMAL2Z038
04	F525-304	MTR MAIN BLK	1	COMMON
05-1	F567-522	PCB CONTROL BLK	1	CMAL2Z037,6Z023
05-2	F567-551	PCB CONTROL BLK	1	CMAL2Z038
05-3	F567-558	PCB CONTROL BLK	1	CMAL6Z024
06	F522-030	CLUTCH ASSY BLK	1	COMMON
29	F522-031	CLUTCH ASSY BLK	1	COMMON
31-1	F514-118	ROLLER PINCH BLK R	1	CMAL2Z037,038
31-2	F514-120	ROLLER PINCH BLK R	1	CMAL6Z023,024
32	F514-119	ROLLER PINCH BLK L	1	CMAL2Z037,038
25-1	FF17G-31	BELT MAIN	1	CMAL2Z037,038
25-2	FF17W-31	BELT MAIN	1	CMAL6Z023,024
42	FF18W-11	F/R BELT	1	COMMON
69	FU20F-11	S-251	1	CMAL6Z023,024
70-1	FD30F-22	TAPE GUIDE	1	CMAL6Z023
70-2	FU192-11	ERASE HEAD	1	CMAL6Z024

CD MECHANISM EXPLODED VIEW PARTS LIST (SMC-002)

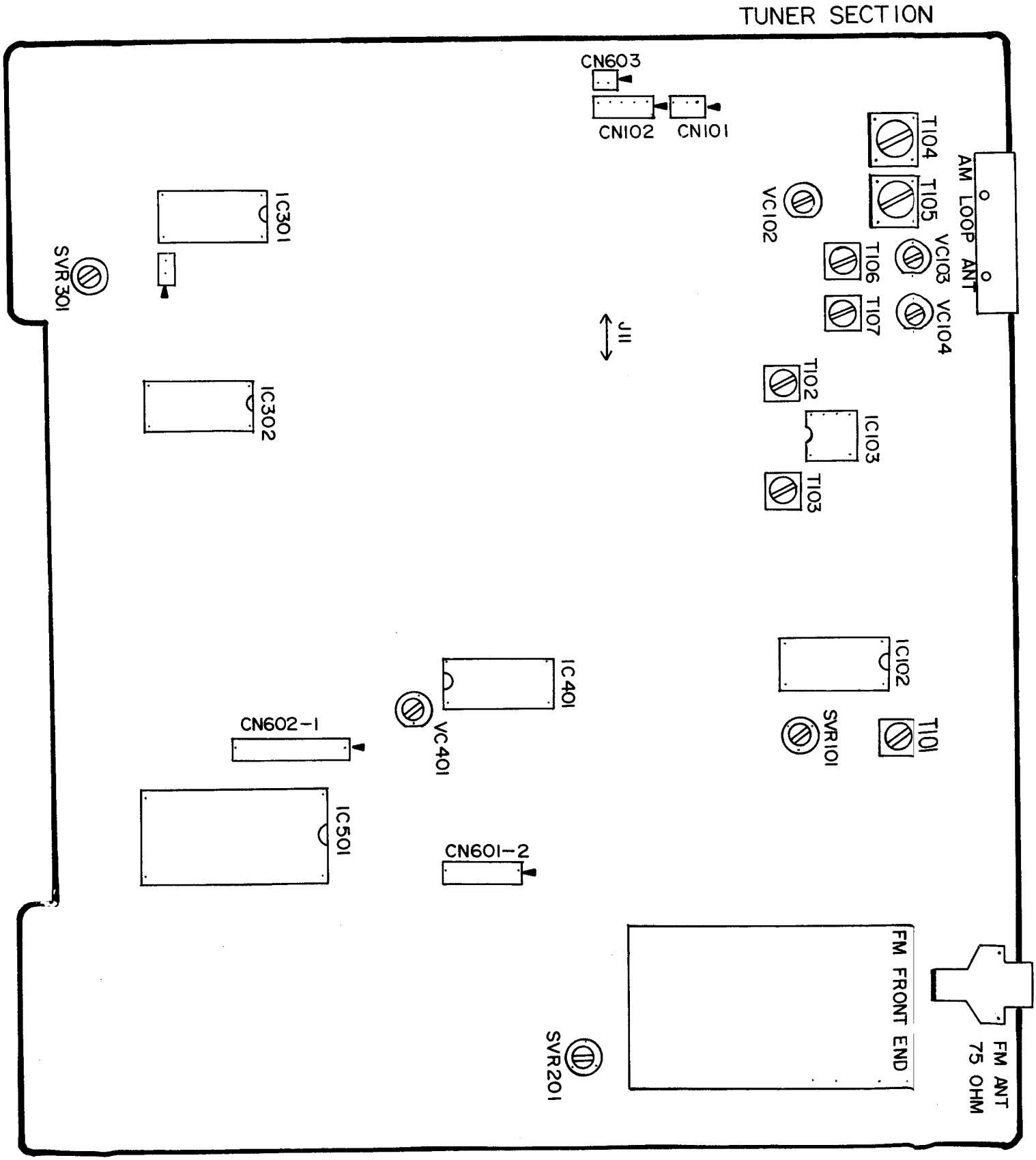
NO.	PARTS NO.	DESCRIPTION	Q'TY	MATERIAL
1	361543101	BASE MECHANISM	1	ABS+GF 20% 94HB
2	361544001	HOLDER(R), TRAY	1	POM(WHITE)94HB
3	361543901	HOLDER(L), TRAY	1	POM(WHITE)94HB
4	361543801	LOADING,GEAR	1	POM(WHITE)94HB
5	361543701	PULLEY,GEAR	1	POM(WHITE)94HB
6	361543401	GEAR,IDLE	1	POM(WHITE)94HB
7	361543601	RIVER(A),PULLEY	1	POM(WHITE)94HB
8	361543501	RIVER(B),GEAR	1	POM(WHITE)94HB
9	381811201	BELT	1	CR,026.63
10	214816001	LOADING MOTOR	1	MABUCHI
11	361544301	TRAY,CD	1	ABS(BLACK)94HB
12	215972401	CONNECTOR ASS'Y	1	5P,400,28AWG UL
13	219699601	LEAF S/W	1	LSC-1220-01
14	361543201	GEAR,SLIDE	1	PC(BLACK)94HB
15	381812201	HOLDER,MAGNET	1	ABS(BLACK)94HB
16	381811901	GUIDE,MAGNET	1	ABS(BLACK)94HB
17	381812301	MAGNET	1	FERRITE CORE
18	381812101	PLATE,MAGNET	1	SECC t0.8*038.5
19	361544401	BASE,SUB	1	ABS(BLACK)94HB
20	361544501	SPRING,CUSHION A	2	SUS 304 WPB
21	361544601	SPRING,CUSHION B	2	SUS 304 WPB(RED)
22	361544101	CUSHION,RUBBBER	4	SILICON RUBBER
23	215051701	PICK-UP UNIT	1	KSM-210AFM
24	361544201	RIVER (C) PU	4	PC(BLACK)94HB
25	361543301	PULLEY,MOTOR	1	POM(WHITE)94HB

TUNER ALIGNMENT 5500RDS

Step	Function	Preparation	Singal input	Adjusting element	Indicated value
1.	FM-Muting Level	Set 5500RDS display to 98MHz. Switch mono switch to off.	98MHz/40KHz /1KHz/10uV	SVR201	Muting off
2.	FM-RDS Sens	Connect RDS-generator to antenna socket. Connect voltmeter to pin 15 of IC301. Set 5500RDS display to 98MHz.	98MHz/40KHz /1KHz/63uV	SVR301	Active Low level (0V)
3.	AM-IF (MW)	Connect RF-generator to antenna terminal. Set 5500RDS display to 531KHz.	450KHz/30% /400Hz	T101	Max. 400Hz-level
4.	MW-Corner frequencies	Set 5500RDS display to 531KHz. Set digital voltmeter(10M) to J11.		T106	1.0V
5.	MW-Corner frequencies	Set 5500RDS display to 1620KHz. Set digital voltmeter(10M) to J11.		VC103	8.0V
6.	Repeat step 4 and 5 again				
7.	MW-Tracking repeat adjust-ment several times	Set 5500RDS display to 603KHz. Set 5500RDS display to 1404KHz.	603KHz/30% /400Hz 1404KHz/30% /400Hz	T104	Max.ng 400Hz-level Max. 400Hz-level
8.	LW-Corner frequencies	Set 5500RDS display to 153KHz. Set digital voltmeter(10M) to J11.		T107	0.9V
9.	LW-Corner frequencies	Set 5500RDS display to 281KHz. Set digital voltmeter(10M) to J11.		VC104	5.4V
10.	Repeat step 8 and 9 again.				
11.	LW-Tracking repeat adjust-ment several times	Set 5500RDS display to 153KHz. Set 5500RDS display to 281KHz.	153KHz/30% /400Hz 281KHz/30% /400Hz	T105 VC102	Max. 400Hz-level Max. 400Hz-level

EINSTELLPUNKTE/LOCATION POINTS

ALIGNMENT POINTS



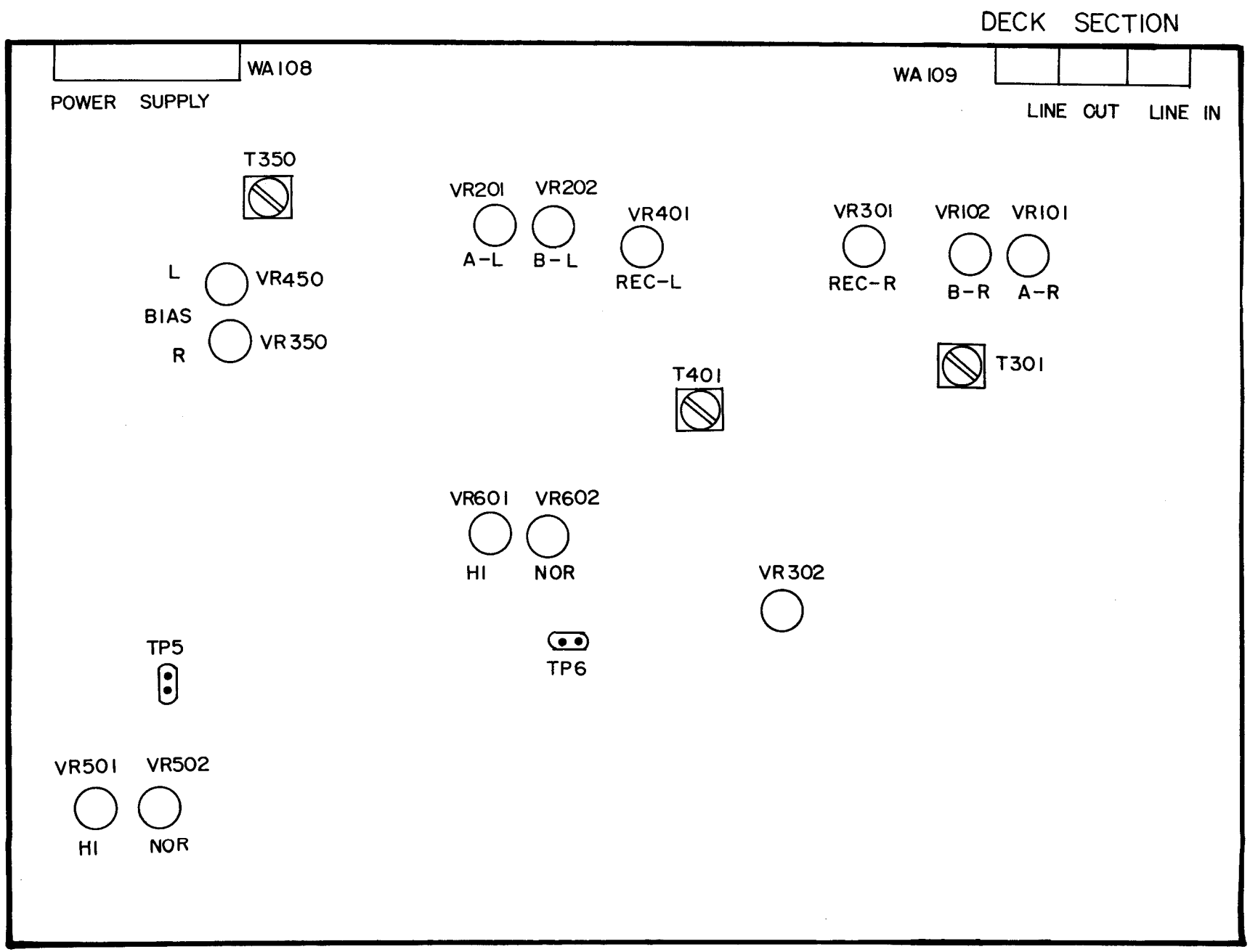
DECK ALIGNMENT 5500RDS

Step	Function	Preparation	Signal input	Adjusting element	Indicated value
1.	Spindle torque (A+B)				
1.1	Playback mode	Insert spindle torque test cassette.	-	-	30...70gcm 0.29...0.68Ncm
1.2	Fast forward mode		-	-	70...150gcm 0.68..1.47Ncm
1.3	Rewind		-	-	70...150gcm 0.68..1.47Ncm
2.	Azimuth				
2.1	Deck A	Insert 12.5KHz-testtape(TCC-154) Connect voltmeter(10M) to LINE OUT, left channel. Connect voltmeter(10M) to LINE OUT, right channel. Switch deck A to play back mode.		Azimuth -screw deck A	Max. 12.5KHz-level
2.2	Deck B	Insert 12.5KHz-testtape. Connect voltmeter as step 2.1. Set deck B to play back mode.		Azimuth -screw deck B	Max. 12.5KHz-level
3.	Tape speed deck A	Insert 3KHz-testtape (TCC-112). Connect frequency counter to LINE OUT, left and right channel			After you adjust Hi-speed, adjust normal-speed
3.1	High speed	Short(TP5 wafer pin) Set deck A to play back mode.		VR501	5400+/-20Hz
3.2	Normal speed	Set "high-speed-switch" to "off" -position. Switch deck A to play back mode.	-	VR502	3000+/-20Hz
4.	Tape speed deck B	Insert 3KHz-testtape (TCC-112). Connect frequency counter to LINE OUT, left and right channel			
4.1	High speed	Short (TP6 wafer pin) Set deck B to play back mode.	-	VR601	5400Hz+/-20Hz
4.2	Normal speed	Set "high-speed-switch" to "off" -position. Switch deck B to play back mode.	-	VR602	3000+/-20Hz

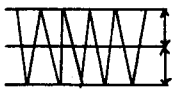
5.	Playback gain deck A	Insert testtape TCC-130 from ABEX. Connect voltmeter to LINE OUT to right channel. Connect voltmeter to LINE OUT, left channel. Set deck A to play back mode.	(left channel) (right channel)	VR201 VR101	500mV 500mV
6.	Playback gain deck B	Connect voltmeter as step 5. Switch deck B to play back mode.	(left channel) (right channel)	VR202 VR102	500mV 500mV
7.	MPX Filter	Insert black-testtape to deck A with record mode. Connect AF-generator to LINE IN. Connect voltmeter to LINE OUT. Set the output level of AF-generator to 1KHz 50mV. Change the suppling signal 19KHz and Dolby NR B mode. Confirm the difference in dB between Dolby NR off and Dolby NR B.	(left channel (right channel)	T401 T301	>30dB >30dB
8.	REC peak response	Set AF-generator to LINE IN. Connect voltmeter to C411 or C311 plus left or right channel. Insert normal blank-testtape(TCC-106A) to deck A. Set deck A to record mode.	14KHz 150mV (left channel) (right channel)	VR302	Max 14KHz-level
9	Record gain deck A	Connect AF-generator to LINE IN. Connect voltmeter to LINE OUT. Set the output level of AF-generator to 150mV 1KHz. Insert normal blank test tape (TCC-106A) to deck A and set deck A to record mode. Keep record mode about 10 seconds at this condition. Then, play the recorded tape and adjust VR401, VR301 to get 150mV from the LINE OUT.	1KHz,150mV (left channel) (right channel)	VR401 VR301	150mV 150mV
10.	Frequency response	Connect AF-generator to LINE IN. Connect voltmeter to LINE OUT. Keep record mode about 10 seconds at 10KHz 50mV of AF-generator. Then, play the recorded tape and adjust VR450, VR350 to get 150mV from the LINE OUT.	10KHz, 50mV (left channel) (right channel)	VR450 VR350	50mV 50mV

EINSTELLPUNKTE / LOCATION POINTS

ALIGNMENT POINTS



CD ADJUSTMENT 5500RDS

SUBJECT	INPUT	ADJUST FOR	MESURE OUTPUT	ADJUST	DESCRIPTION
E.F BALANCE	INSERT DISC FIRST AND PLAY	VR4	CONNECT JIG CONNECTOR TO TP101 IN CD MAIN PCB.	 ADJUST EF BALANCE TO BE EQUAL BOTH A AND B. SCOPE:DC TIME/DIV:2mS VOLT/DIV:0.5mV	ADJUST EF BALANCE UNDER JIG EF SWITCH "ON". IF FINISHING OF ADJUSTMENT, DO SWITCH "OFF".
F.E BIAS	INSERT DISC FIRST AND PLAY	VR5	CONNECT RF TERMINAL OF TP102 IN CD MAIN PCB TO JITTER METER. CONNECT VC TERMINAL OF TP102 IN CD MAIN PCB TO GROUND (GND).	ADJUST FE BIAS TO MINIMIZE JITTER VALUE AND TO MAKE RF OUTPUT LEVEL AS MAXIMUM.	
FOCUS GAIN	INSERT DISC FIRST AND PLAY	VR3	CONNECT JIG CONNECTOR TO TP101 IN CD MAIN PCB.(INPUT OF JIG OSC:900Hz/100MV)	ADJUST AN INDICATOR OF VTVM CHANNEL 1 AND 2 TO BE SAME.	ADJUST EF BALANCE UNDER JIG EF SWITCH "ON". IF FINISHING OF ADJUSTMENT, DO SWITCH "OFF".
TRACKING GAIN	INSERT DISC FIRST AND PLAY	VR2	CONNECT JIG CONNECTOR TO TP101 IN CD MAIN PCB.(INPUT OF JIG OSC:700Hz/100MV)	ADJUST AN INDICATOR OF VTVM CHANNEL 1 AND 2 TO BE SAME	ADJUST EF BALANCE UNDER JIG EF SWITCH "ON". IF FINISHING OF ADJUSTMENT, DO SWITCH "OFF".

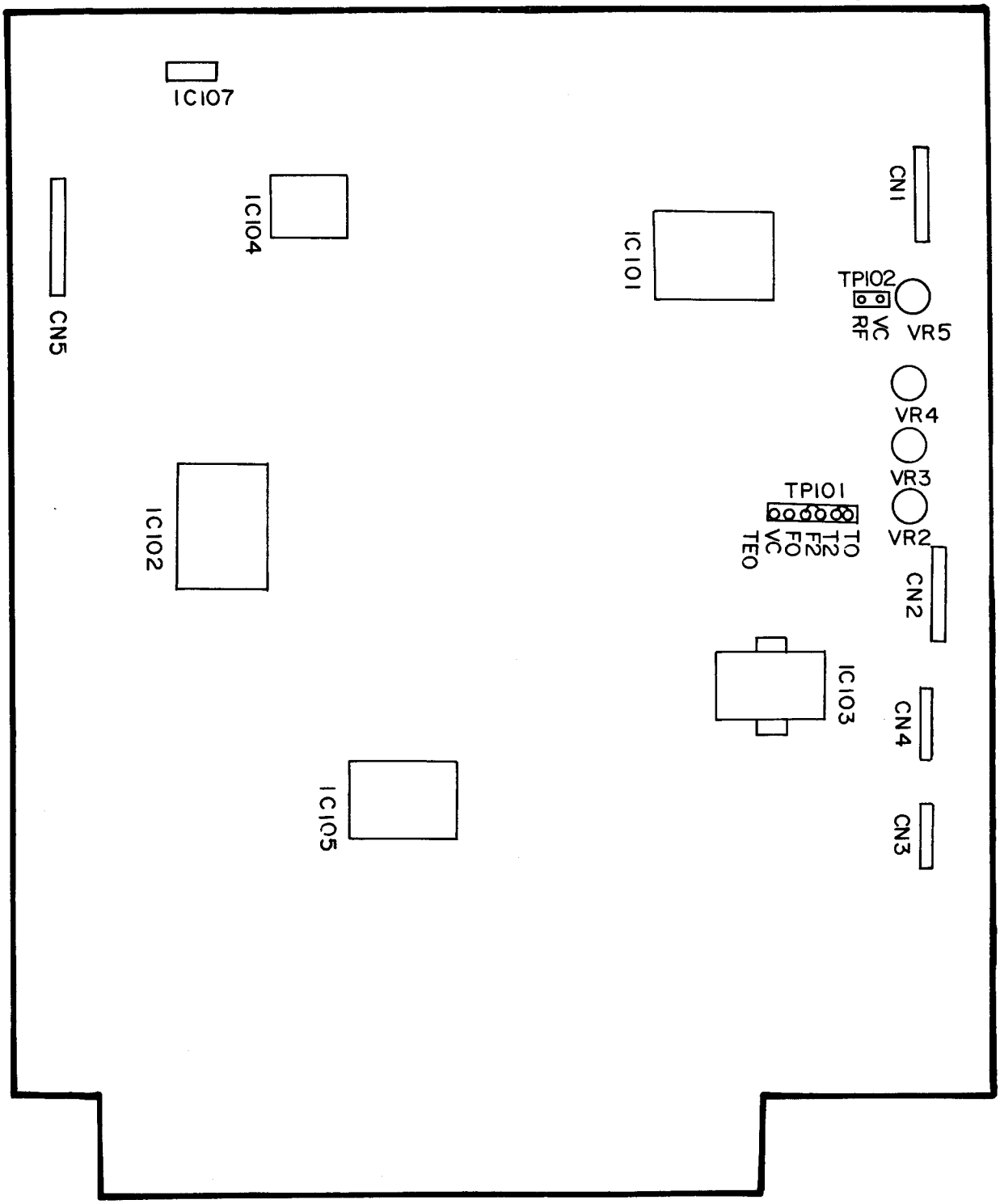
NOTES ON ADJUSTMENT

1) BEFORE ADJUSTMENT, OPEN TI AND TO OF TP101 IN CD MAIN PCB. AND ALSO OPEN FI AND FO.
2) CONNECT JIG CONNECTOR TO TP101 ON CD PCB AND ADJUST. AFTER ADJUSTMENT, SHORT "TI" TO "TO" AND "FI" TO "FO".
3) TEST DISC SHOULD BE SONY YEDS 18.
4) MAKE ADJUSTMENT JIG BY USING CIRCUIT DIAGRAM OF CD ADJUSTMENT OF CD JIG. AND DO ADJUST.

EINSTELLPUNKTE/LOCATION POINTS

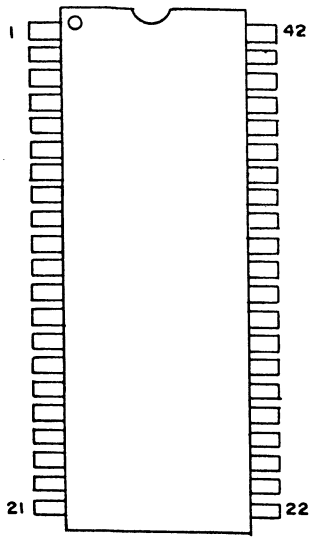
ALIGNMENT POINTS

CD SECTION

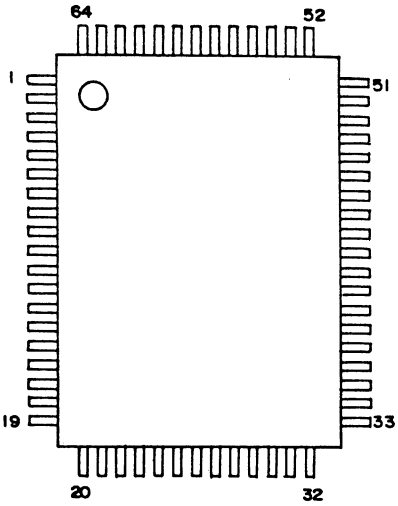


IC PIN VIEW

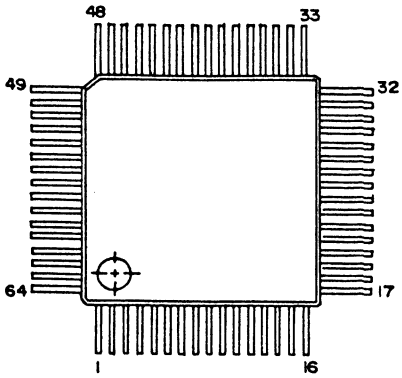
NASU7011



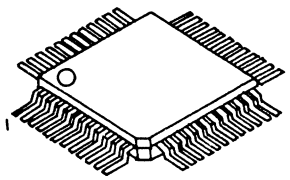
KS56C1660



LC7582

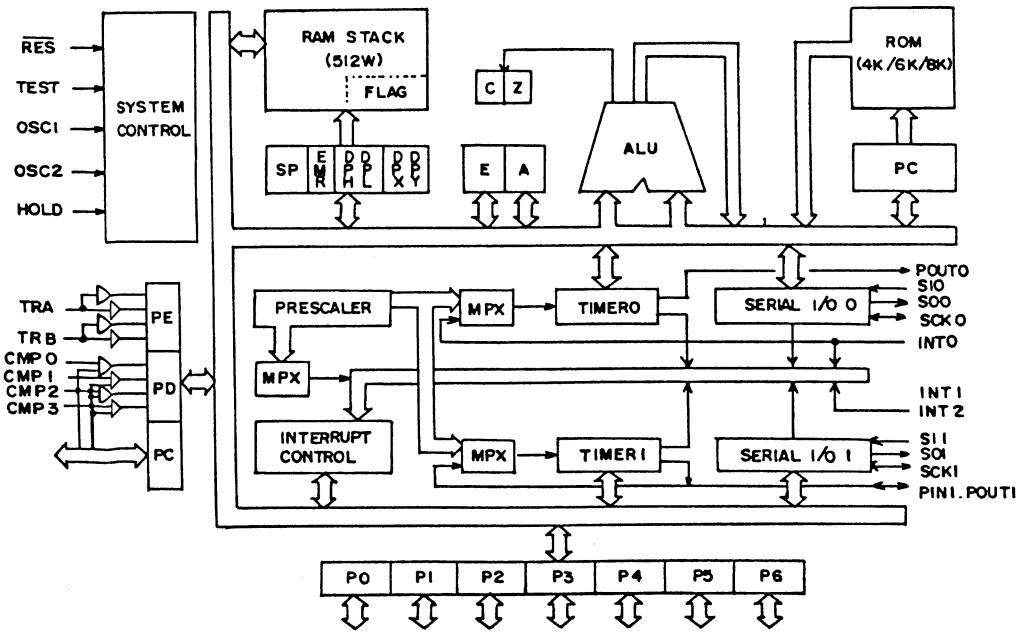


KA22292



IC BLOCK DIAGRAM

NASU7011



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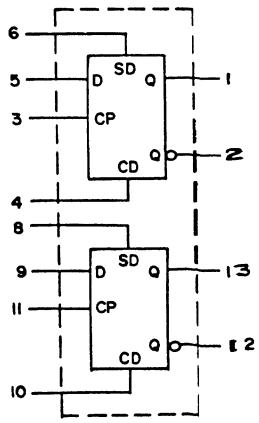
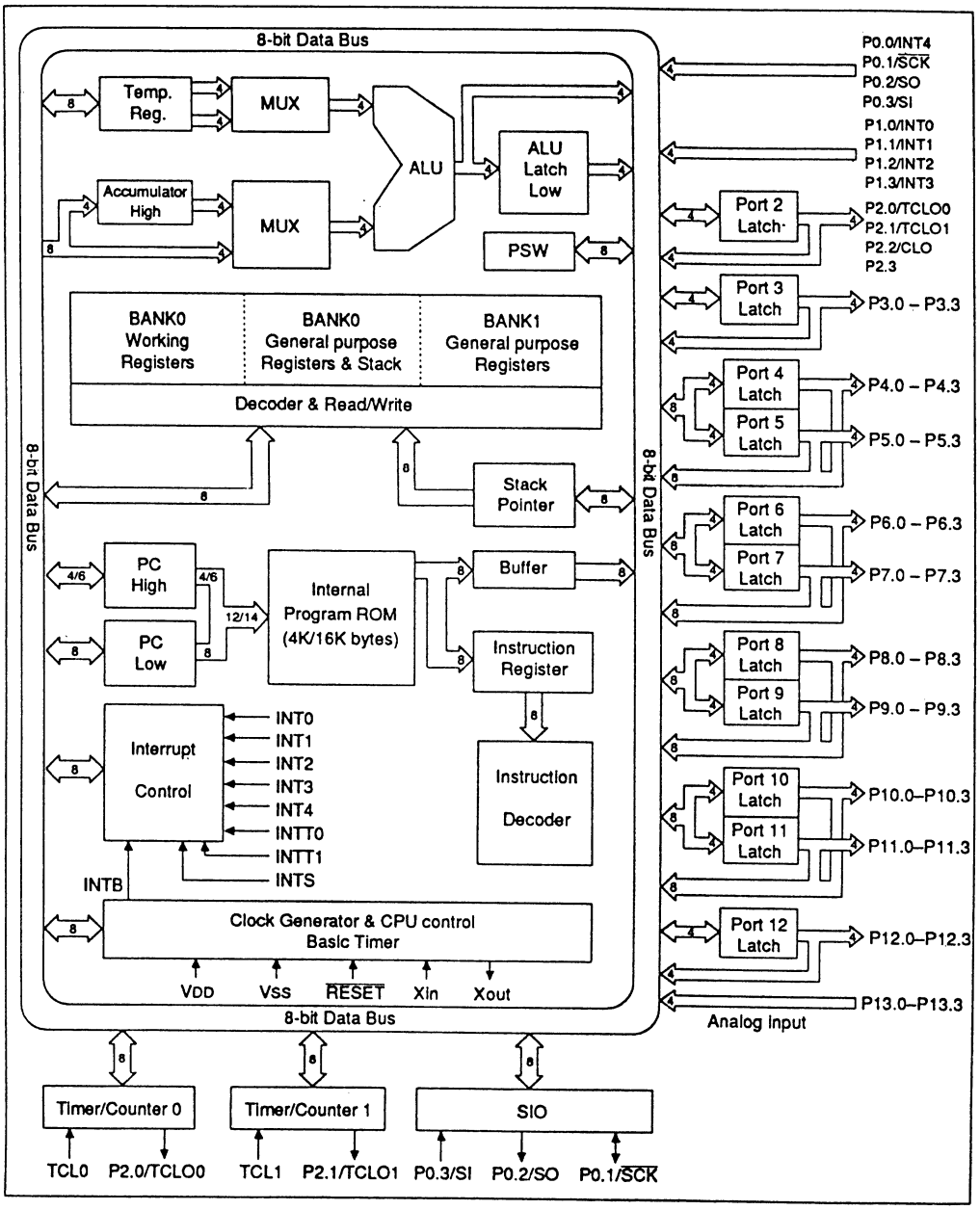
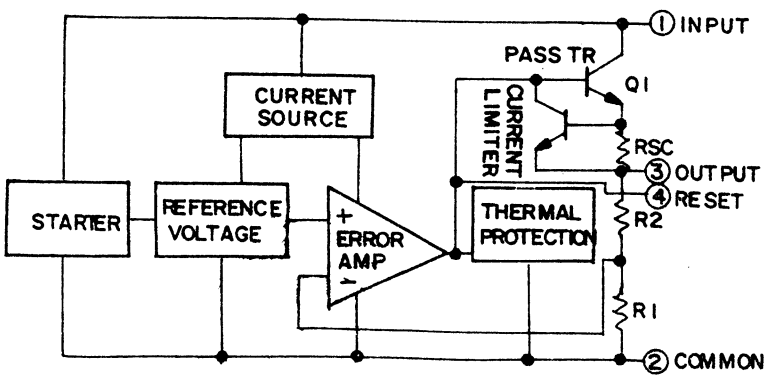


IC BLOCK DIAGRAM

KS56C1660-33

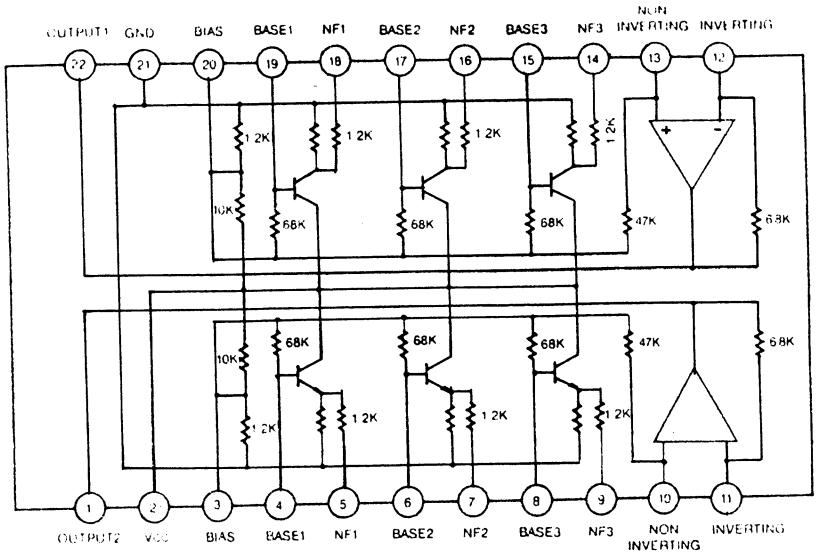


AN7812R

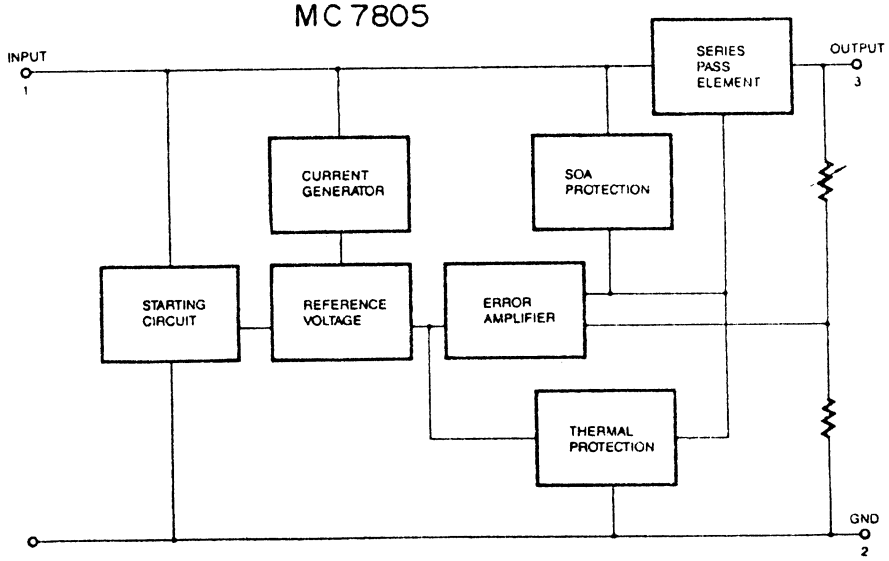


IC BLOCK DIAGRAM

KA22233



MC7805



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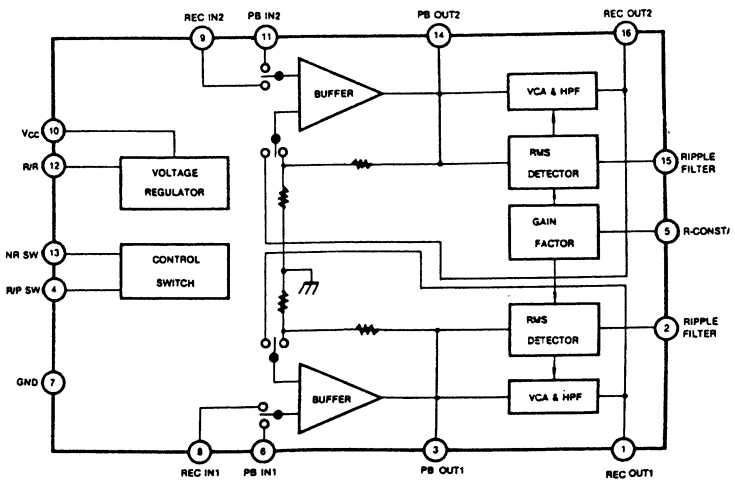
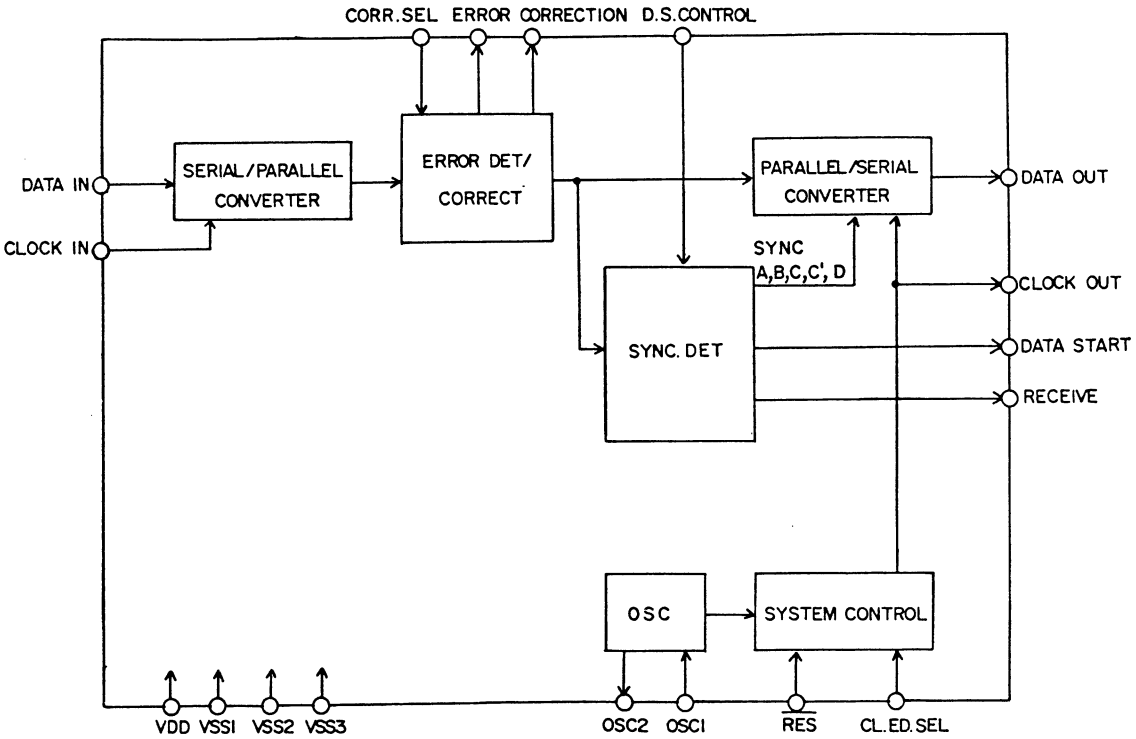
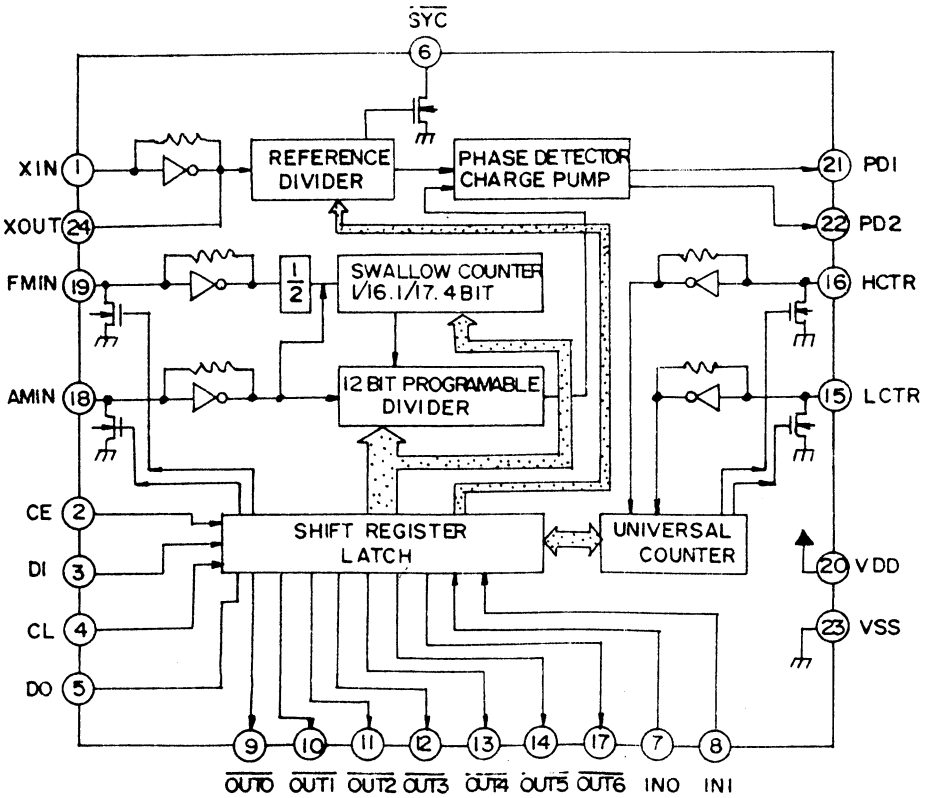


IC BLOCK DIAGRAM

LC 7073

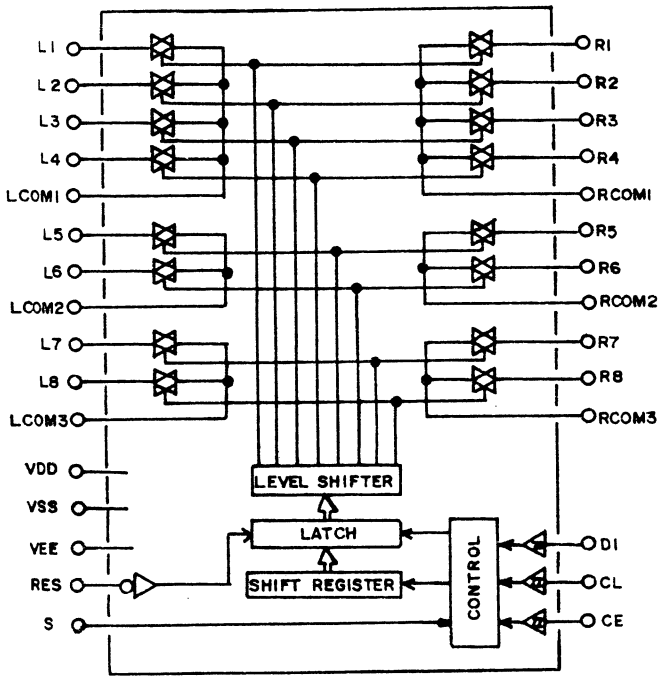


LC 7218

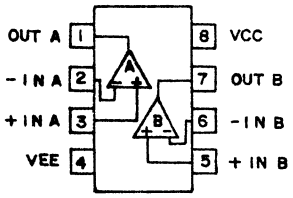


IC BLOCK DIAGRAM

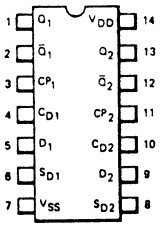
LC7821



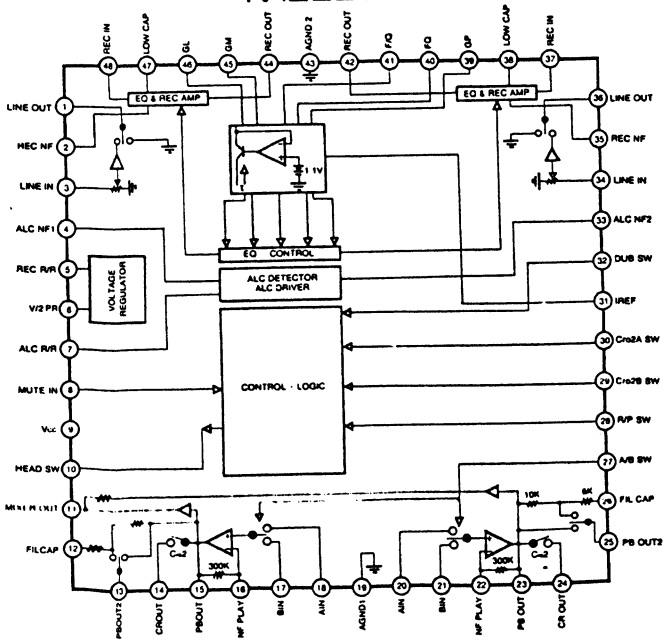
KIA4559AP,P



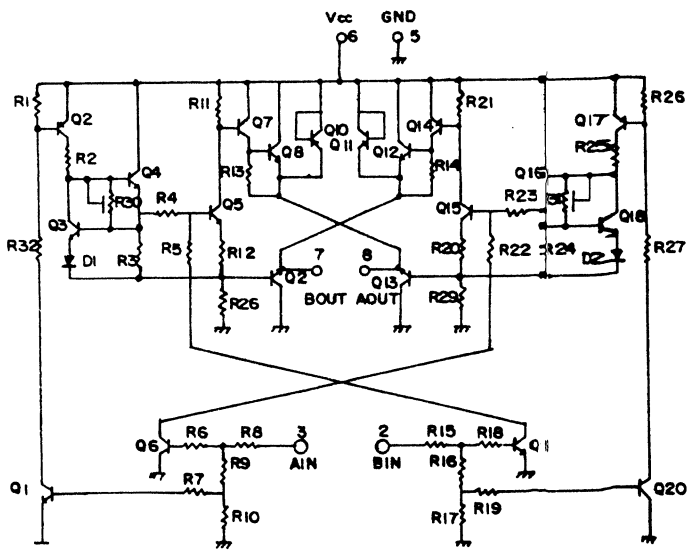
GD4013B



KA22292Q

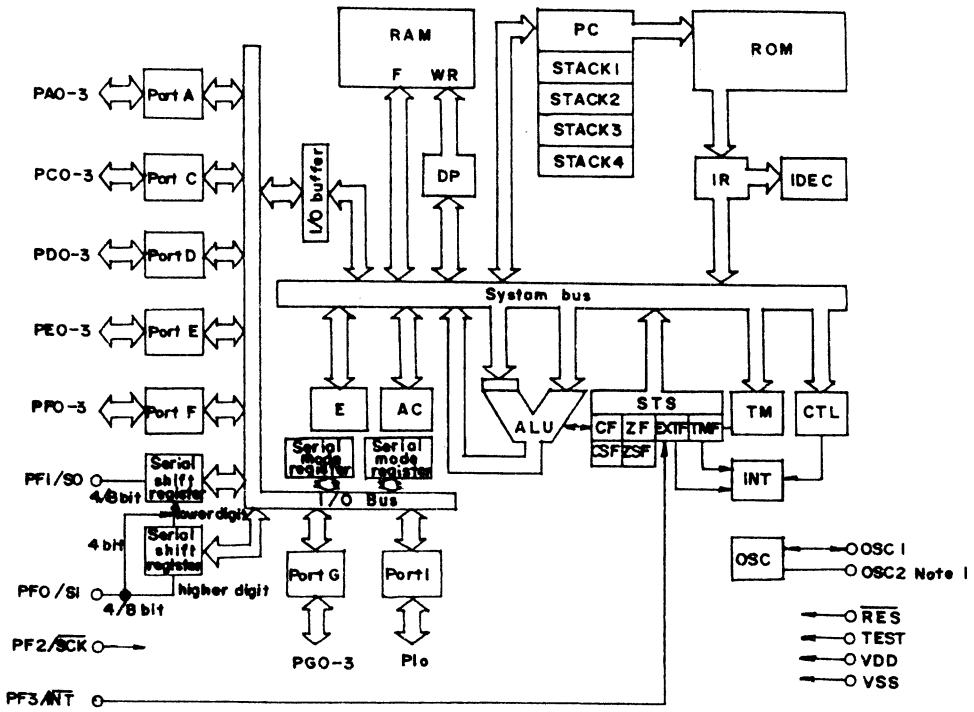


BA6208

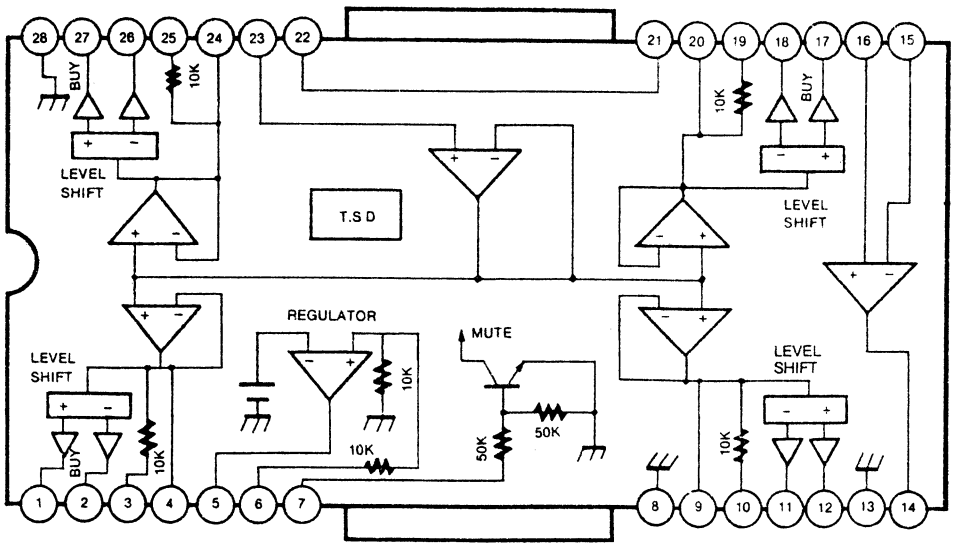


IC BLOCK DIAGRAM

NASU7100/LC6543H

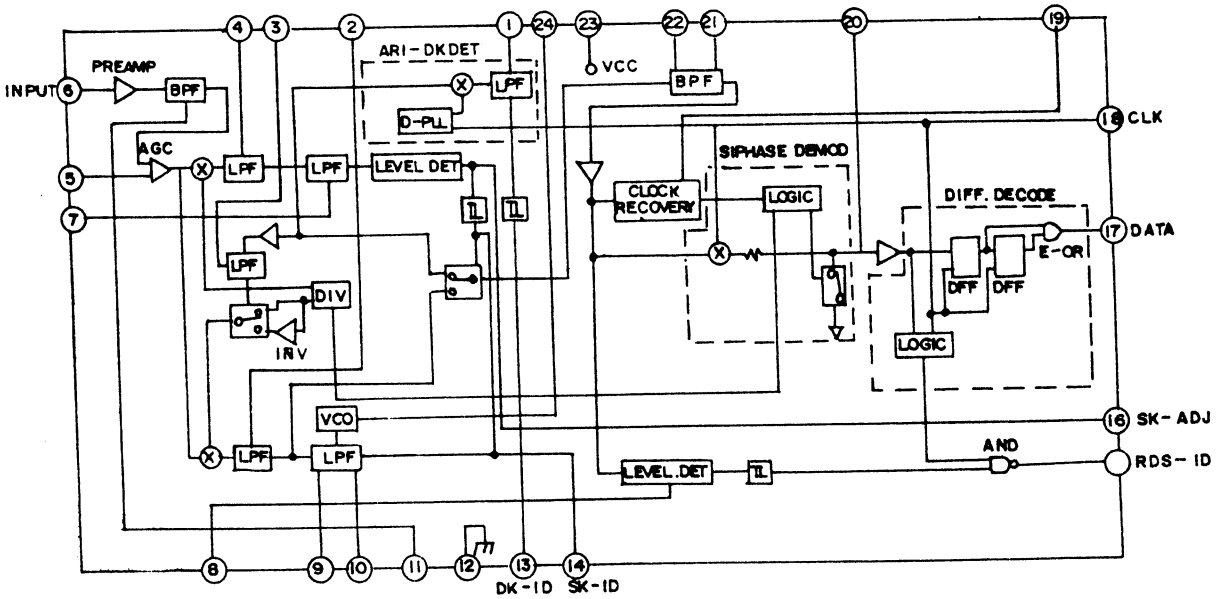


KA9258D



IC BLOCK DIAGRAM

L A 2 2 3 0



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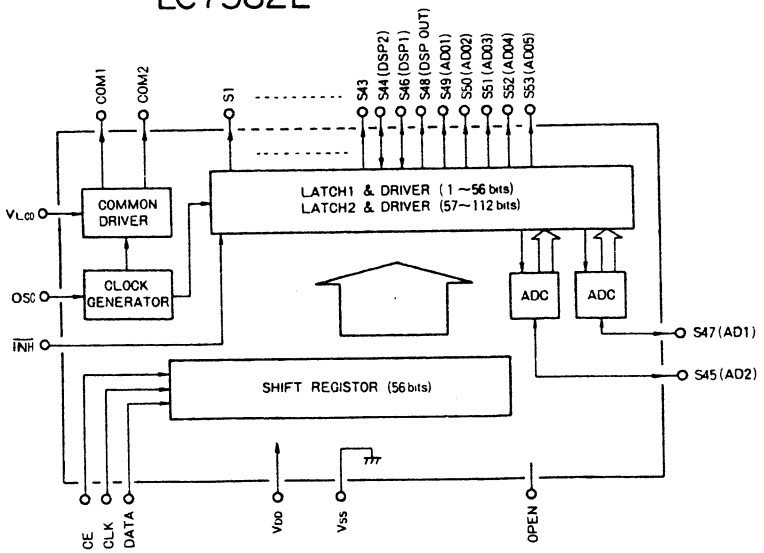

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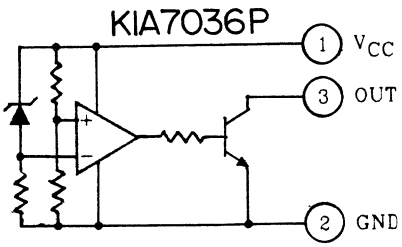
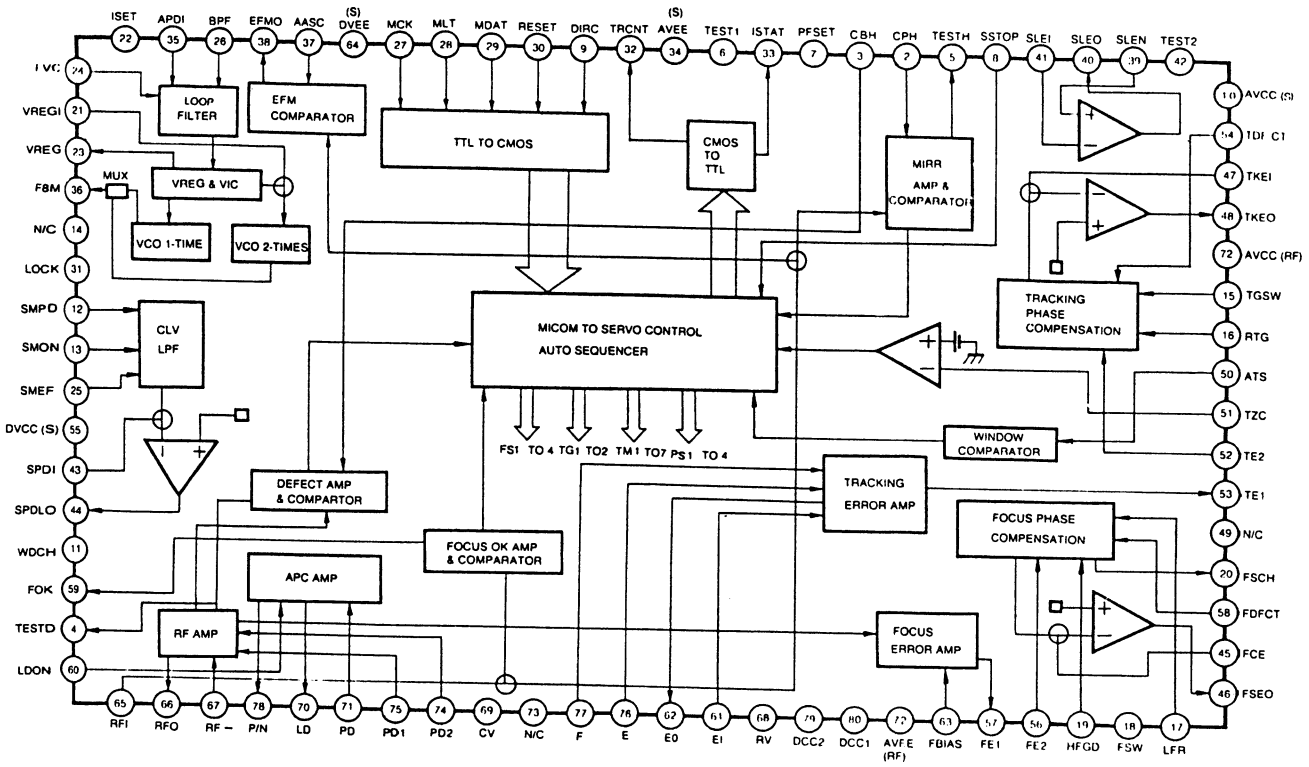


IC BLOCK DIAGRAM

KA9220B



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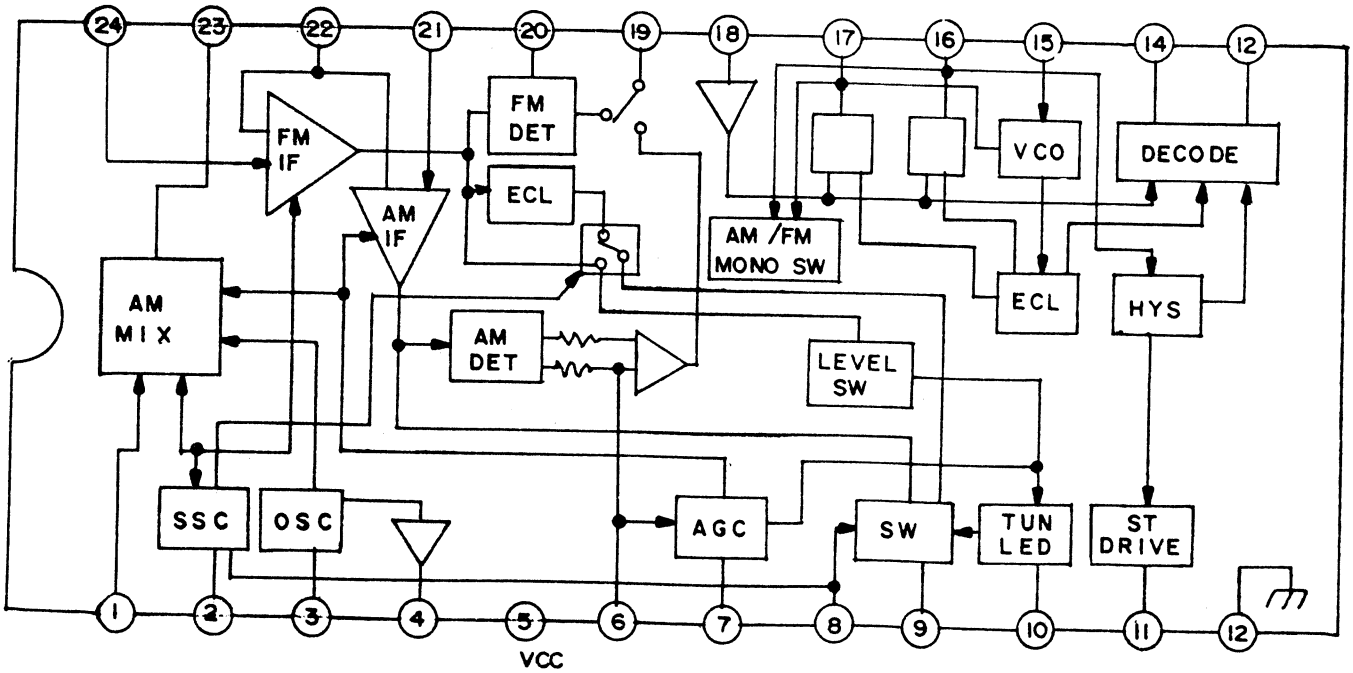
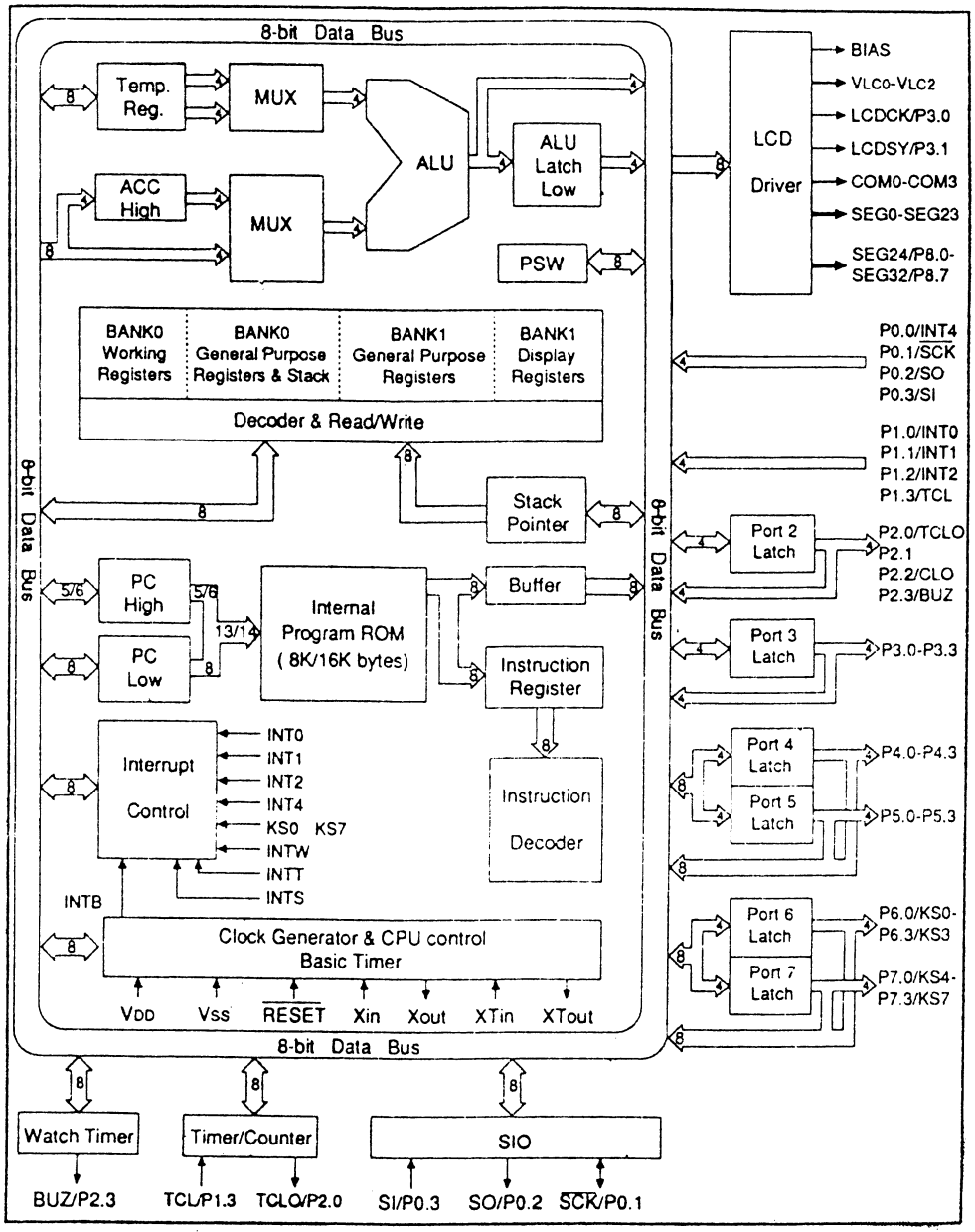


IC BLOCK DIAGRAM

KS56C820



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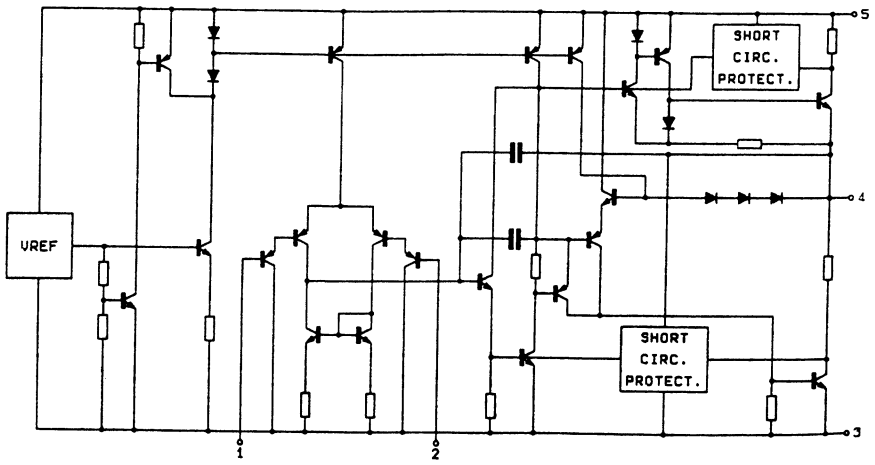
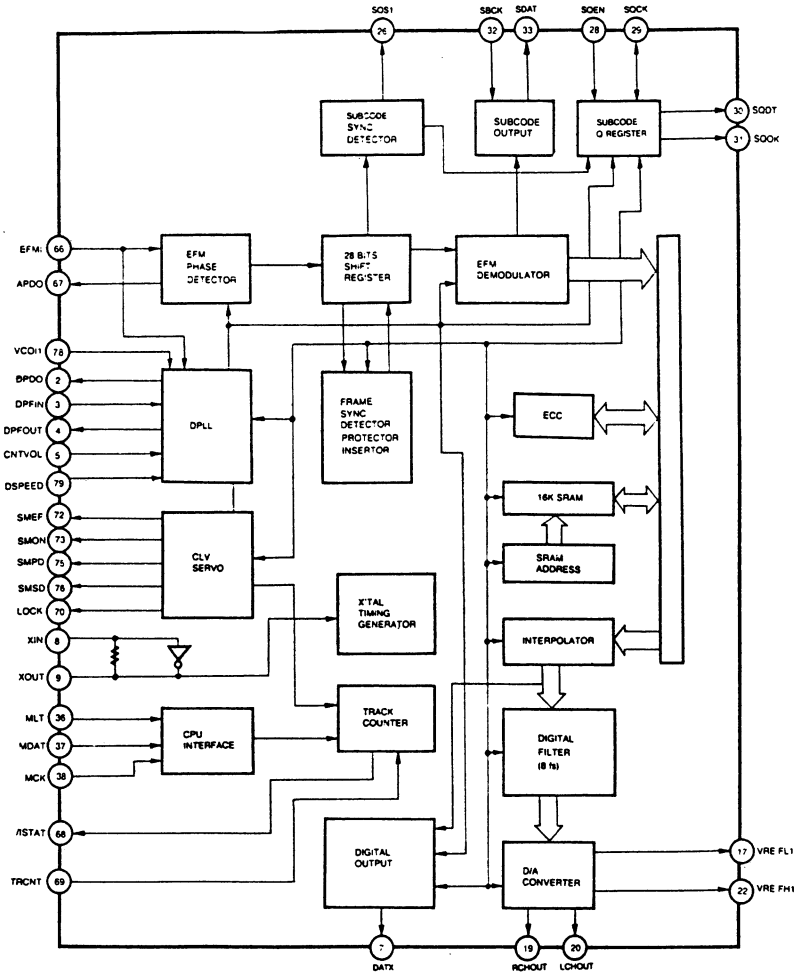
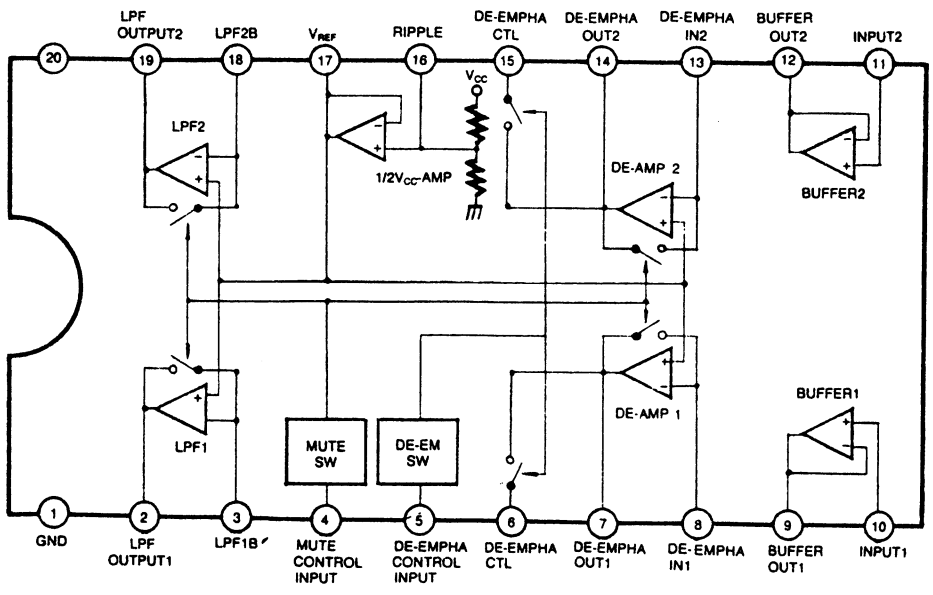


IC BLOCK DIAGRAM

KS9282B

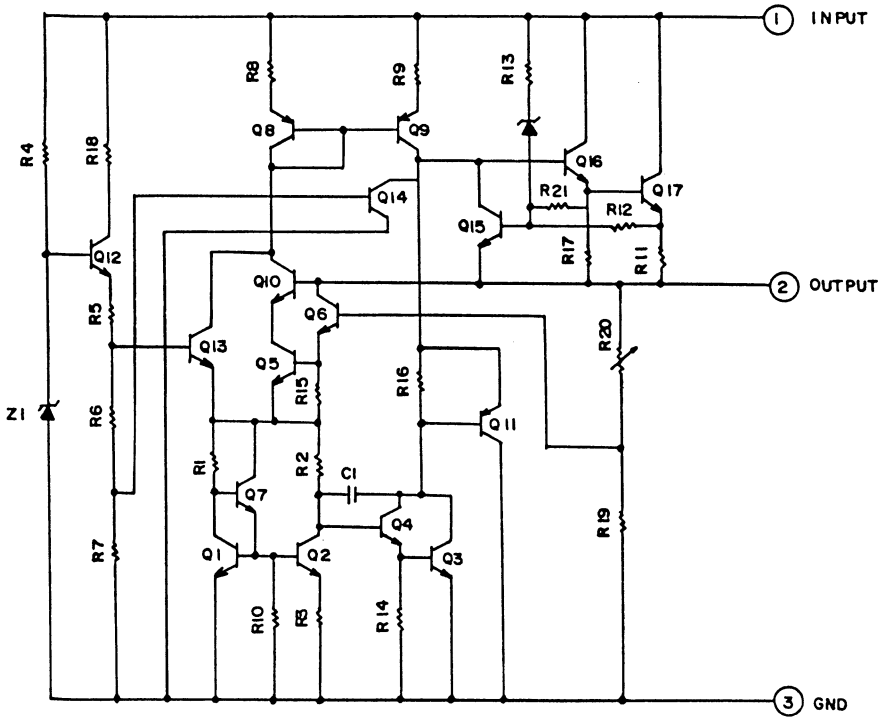


KA9270D

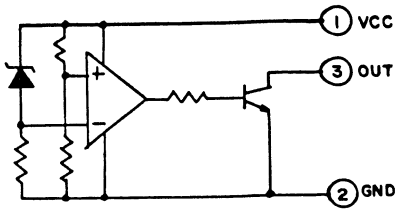


IC BLOCK DIAGRAM

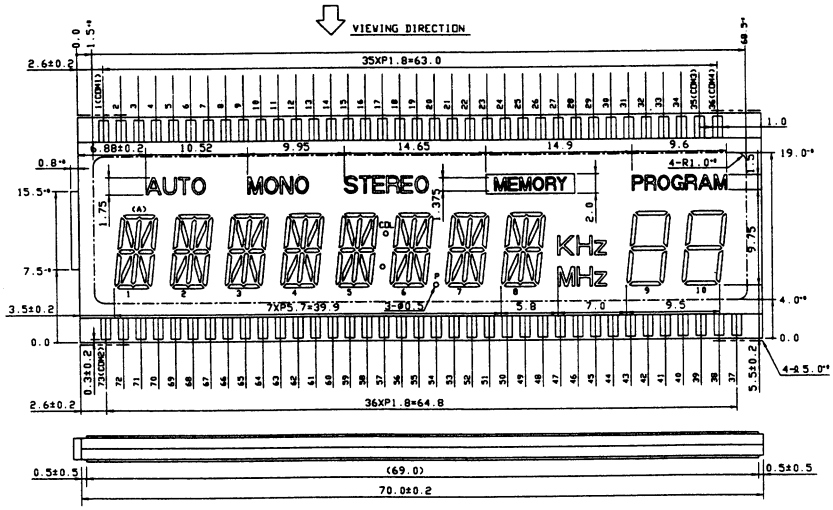
KIA7805P/PI – KIA7824P/PI



KIA7019P/F –
KIA7045P/F



TUNER L.C.D



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
COM1	COM1	1E	1F	1A	1B	•	2F	2A	2B	3F	3A	3B	4F	4A	4B	5F	5A	5B								
COM2	•	1N	1K	1I	1L	AUTO	2K	2I	2L	3K	3I	3L	4K	4I	4L	5K	5I	5L	COL	•	•	•	•	•	•	•
COM3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	6F	6A	6B	MONO	7F	7A	7B
COM4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	6K	6I	6L	P	7K	7I	7L
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
COM1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
COM2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
COM3	STEREO	8F	8A	8B	9A	9F	10A	10F	COM3	•	10D	10E	9D	9E	MHz	8H	8C	8D	8E	7H	7C	7D	7E	6H	6C	6D
COM4	MEMORY	8K	8I	8L	•	9B	PROGRAM	10B	•	COM4	10C	10G	9C	9G	KHz	8G	8M	8J	8N	7G	7M	7J	7N	6G	6M	6J
	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73					
COM1	•	5H	5C	5D	5E	4H	4C	4D	4E	3H	3C	3D	3E	2H	2C	2D	2E	1H	1C	1D	•					
COM2	•	5G	5M	5J	5N	4G	4M	4J	4N	3G	3M	3J	3N	2G	2M	2J	2N	1G	1M	1J	COM2					
COM3	6E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
COM4	6N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					

IC VOLTAGE CHECK LIST (AMP)

IC101 (MC4558C)

1	2	3	4	5	6	7	8
2.8	2.8	2.8	0	2.8	2.8	2.8	11.5

IC102 (LC7821)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.8	11.8	0
21	22	23	24	25	26	27	28	29	30										
0	0	0	0	0	0	0	0	0	0										

IC103 (MC4558C)

1	2	3	4	5	6	7	8
5.6	5.6	5.6	0	5.6	5.6	5.6	11.5

IC201 (KA22233)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6.0	11.0	5.8	5.5	4.8	5.5	4.8	5.5	4.8	5.8	6.0	5.9	5.8	4.8	5.5	4.8	5.5	4.8	5.5	5.8
21	22																		
0	5.9																		

IC301 (BA6208)

1	2	3	4	5	6	7	8	9
0	0	0	0	0	9.9	0	0	0

IC401 (MC4558C)

1	2	3	4	5	6	7	8
5.2	5.2	5.2	0	5.2	5.2	5.2	11.5

IC VOLTAGE CHECK LIST (AMP)

IC402,403 (TDA2030AV)

1	2	3	4	5
0	0	-22.5	0	+22.5

IC501 (NASU7100)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	4.9	0	0	0	4.9	0	4.9	4.9	4.9	0	0	0	4.9	2.2	2.0	0	0	4.9	0

21	22	23	24	25	26	27	28	29	30										
0	0	2.7	0	0	0.2	2.1	1.5	1.7	0.2										

IC503 (GD4013B)

1	2	3	4	5	6	7	8	9	10	11	12	13	14						
0	5.0	0	0	5.0	0	0	0	0	0	0	0	5.0	5.0						

IC601 (MC7805C)

1	2	3
19.5	0	5

IC602 (AN7812R)

1	2	3	4
17.8	0	12	13

IC VOLTAGE CHECK LIST (TUNER)

IC102 (KIA8132AN)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FM	4.9	4.9	4.9	4.9	4.9	4.3	0.5	0	4.9	4.9	4.9	0	1.0	1.0	4.1	4.0	4.0	0.6	1.2	4.0
MW/LW	4.9	4.9	4.9	4.5	4.9	4.3	0.1	0	4.9	4.9	4.9	0	1.0	1.0	4.4	4.9	4.9	0.6	1.3	4.3

MODE	21	22	23	24
FM	4.9	4.7	4.9	4.9
MW/LW	4.9	4.2	3.8	4.9

IC103 (MC4558C/KIA4559P)

MODE	1	2	3	4	5	6	7	8
ALL	5.7	5.7	5.7	0	5.7	5.7	5.7	11.4

IC201 (KIA7805PI)

MODE	1	2	3
ALL	11.6	0	5

IC202 (KIA7805PI)

MODE	1	2	3
ALL	13.8	0	5.6

IC203 (KIA7036P)

MODE	1	2	3
ALL	5.6	0	5.6

IC301 (LA2230)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FM	1.5	1.5	0.5	1.5	2.3	2.5	2.8	1.3	0	0	0.7	0	5	5	2.7	0	2.5	2.4	2.4	1

MODE	21	22	23	24
FM	2.1	2.1	5	3.3

IC VOLTAGE CHECK LIST (TUNER)

IC401 (LC7218)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FM	2.2	0	0	0	5.0	2.4	4.5	0	1.9	4.5	0	0	0	0	0	0	0	0	2.5	4.5
MW	2.2	0	0	0	5.0	2.5	4.8	0	2.0	0	4.8	0	0	0	0	0	0	2.5	0	4.8
LW	2.2	0	0	0	5.0	2.5	4.8	0	2.0	0	0	4.2	0	0	0	0	0	2.5	0	4.8

MODE	21	22	23	24
FM	1.1	1.1	0	2.6
MW	1.1	1.1	0	2.6
LW	1.1	1.1	0	2.6

IC601,602 (LC7582E)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
ALL	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.9	5	5	5	0	0
	61	62	63	64																
	0	0	2.5	2.5																

IC VOLTAGE CHECK LIST (DECK)

IC101 (AN7812R)

1	2	3	4
19.5	0	12.0	13.3

IC102 (KIA7805PI)

1	2	3
15.5	0	5.0

IC103 (KA22292Q)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5.9	5.8	5.9	5.9	5.9	6.6	0	0	11.7	0	2.8	2.8	2.8	2.8	2.8	1.4	0	0	0	0
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
0	1.4	2.8	2.8	2.8	2.8	0	0	4.9	4.9	1.2	4.9	5.9	5.9	5.7	5.9	5.9	5.8	1.2	1.2
41	42	43	44	45	46	47	48												
1.2	5.9	0	5.9	1.2	1.2	5.9	5.9												

IC104 (KA2271)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6.0	0.5	6.0	11.9	1.3	6.0	0	6.0	6.0	11.7	6.0	6.0	11.9	6.0	0.5	6.0

IC105 (KS56C1660-33)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	4.9	0	0	0	0	4.9	2.4	2.4	0.5	0	0	4.9	0	0	0	0	4.8	0	4.8
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
4.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	4.8	0
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
4.9	0	0	0	2.2	0	0	0	1.0	0.6	0.9	1.5	1.1	1.8	1.5	1.0	0.5	4.9	4.8	4.8
61	62	63	64																
4.8	4.8	4.9	0																

* CONDITION : A DECK PLAY * UNIT : V

IC VOLTAGE CHECK LIST (CD)

IC101 (KA9220-427)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	3	0	0	0	5	0	0	5	5	2.5	2	5	0	2.5	2.5	2.5	2.4	2.5	2.8
STOP	0	0	2.5	0	5	5	0	0	5	5	2.5	0	0	0	2.4	2.5	2.5	2.4	2.8	2.8
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	3.5	2.2	3.5	0	2.6	0	5	5	5	3.9	5	0	5	0	0	2.8	2.5	2.5	2.5	2.5
STOP	3.5	2.1	3.5	0	0	0	5	5	0	3.8	0	0	0	0	0	2.8	2.5	2.5	2.5	2.5
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	2.5	5	2.5	2.8	2.5	2.9	2.5	2.5	0	2.4	2.5	2.5	2.5	2.4	5	2.5	2.6	2.4	5	0
STOP	2.5	5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	5	2.6	2.8	2.5	0	5
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	2.1	0	2.8	0	2.5	3.3	2.5	2.5	2.5	3.4	0	5	0	2.5	2.5	2.5	2.5	3.3	0	0
STOP	2.5	2.5	2.8	0	2.5	2.5	2.5	2.5	2.5	4.7	0	5	0	2.5	2.5	2.5	2.5	4.7	0	3.9

IC102 (KS9282B-472A)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	5	2.4	2.4	2.9	2.9	0	2.5	2.2	.	2.5	2.5	2.6	0	2.5	0	0	0	5	2.5	2.5
STOP	5	2.4	2.4	2.9	2.9	0	2.5	2.2	.	2.5	2.5	0	0	2.5	5	0	0	5	2.5	2.5
MODE	21	22	23.	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0	4.4	4.4	0	0	0	3.9	5	5	0	5	0	5	5	0	5	5	5	0	0
STOP	0	4.4	4.4	0	0	0	3.7	5	5	0	0	0	4.1	5	5	5	0	5	0	0
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	0	0	0	0	0	0	0	0	0	0	0	2.5	0	5	0	5	2.5	0	4.1	2.8
STOP	0	0	0	0	0	0	3.7	3.7	0	2	2	2.4	0	4.9	5	0	2.5	2	4.1	2.5
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	0	0	0	0	0	2.5	0	5	0	5	2.5	0	5	5	2	2.8	2.4	2.4	5	5
STOP	0	0	0	0	0	2.5	0	0	0	0	2.5	0	0	5	0	0	2.4	2.4	5	5

IC VOLTAGE CHECK LIST (CD)

IC103 (KA9258D-2)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	4.4	5.4	2.9	2.5	0	0	3.9	0	2.5	2.5	5	5	0	10	.	.	4.7	5.3	2.8	2.5
STOP	5.6	5.6	2.5	2.5	0	5	3.8	0	2.5	2.5	5.6	5.6	0	11	.	.	5.6	5.6	2.5	2.5
MODE	21	22	23	24	25	26	27	28												
PLAY	10.4	10.4	2.5	2.5	2.5	5	4.9	0												
STOP	11.6	11.6	2.5	2.5	2.6	5.6	5.5	0												

IC104 (KA9270-414)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	3.9	3.9	0	0	3.5	3.9	3.9	2.5	2.5	2.5	2.5	3.9	3.9	3.5	6.2	3.9	3.9	3.9	7.7
STOP	0	3.9	3.9	5	0	3.5	3.9	3.9	2.5	2.5	2.5	2.5	3.9	3.9	3.5	6.2	3.9	3.9	3.9	7.7

IC105 (KS56C820-J4)

MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	5	5	2.5	2.5	2.5	2.5	5	5	3.3	1.7	0	0	5	0	0	0	5	5	5	5
STOP	0	5	2.5	2.5	2.5	2.5	5	5	3.3	0	0	0	5	0	0	0	0	0	5	5
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	5	5	5	-5	5	5	5	5	5	0	5	5	5	0	0	4	5	0	5	5
STOP	5	5	5	.	.	.	.	5	5	5	0	5	5	0	0	3.7	5	0	5	5
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	5	5	5	5	0	5	2.5	2.7	2	2.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
STOP	5	5	5	5	0	5	2.5	2.7	2	2.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	5
STOP	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	5